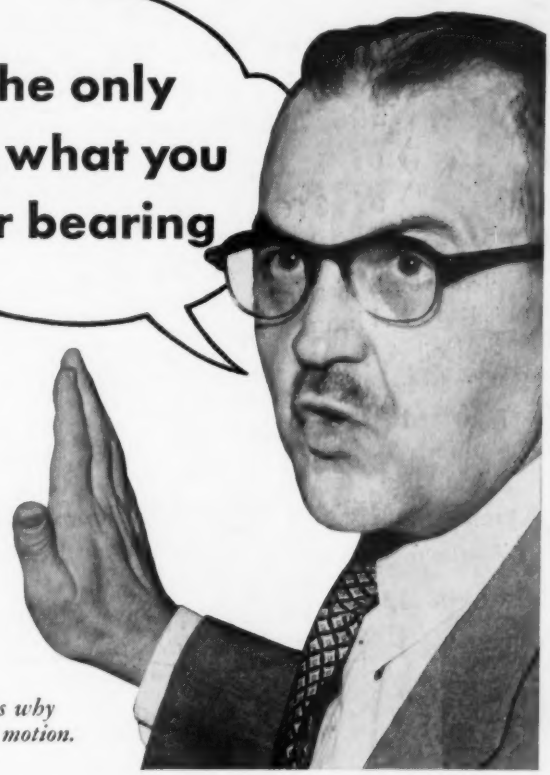
OCTOBER 18, 1954

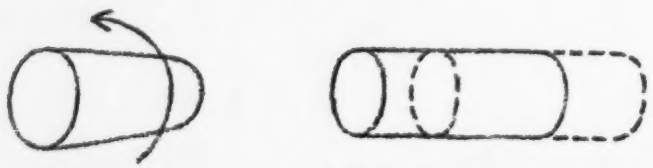
Nashville's Radnor Yards . . . p. 72

RAILWAY AGE

One of Five Simmons-Boardman Railway Publications

The taper makes TIMKEN® the only journal bearing that delivers what you expect when you buy a roller bearing





ROLLERS ARE MADE TO ROLL, THEY ARE NOT DESIGNED TO SLIDE.

This month Dr. Oscar Horger demonstrates why Timken bearings always roll without lateral motion.

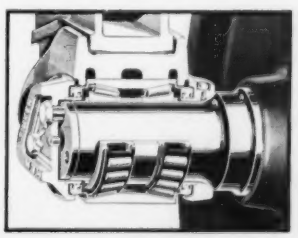
YOU *really* buy roller bearings to end the hot box problem, cut costs. The Timken® tapered roller bearing is the one bearing you can count on to end the hot box problem and cut operating and maintenance costs to a minimum. It's the taper! Here's why:

1) *No lateral movement within the bearing.* Roller bearing rollers are made to roll—not slide. Under high unit pressures, lateral movement in straight roller bearings causes sliding and scuffing, shortens bearing life. This is especially true on freight cars when they're dumped and bumped while standing still. It usually shows up in the form of longitudinal surface sliding marks on the rollers and races. Lateral movement also pumps lubricant through the seal and out of the journal box, draws dirt and water in. And auxiliary thrust devices are needed to take the thrust loads. These thrust devices are hard to lubricate with grease and expensive to maintain. The taper in Timken bearings prevents lateral movement, enables them to take the thrust. There's no scuffing, no pumping action. This means less maintenance, less lubricant and longer bearing life and eliminates the hot box problem.

2) *Positive roller alignment.* The taper provides the forces which hold ends of rollers snug against the rib where wide area contact keeps rollers properly aligned. There's no skewing of rollers to upset the full line contact and shorten the life of the bearing.

Really *get* what you pay for when you switch to roller bearings to end the hot box problem and cut operating and maintenance costs to a minimum. Get Timken tapered roller bearings. The Timken Roller Bearing Company, Canton 6, Ohio. Canadian plant: St. Thomas, Ontario. Cable address: "TIMROSCO".

THE TAPER MAKES TIMKEN TRADE-MARK REG. U. S. PAT. OFF. THE BEARING YOU TRUST



NOT JUST A BALL ○ NOT JUST A ROLLER ⊂⊃ THE TIMKEN TAPERED ROLLER ⊂⊃ BEARING TAKES RADIAL ↕ AND THRUST →←

SPECIAL REPORT: Is the Post Office Fooling Itself? . . . p. 54

"Grass Roots" Public Relations

Revenues & Expenses of Class I Roads

Pioneer in Mechanical Cooling

Heavy Rains Snarl Chicago Terminals

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FOR SUCCESSFUL USE OF LOWER COST DIESEL FUEL OILS

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- CUTS FUEL COSTS
- IMPROVES FUEL EFFICIENCY
- LOWERS MAINTENANCE
  - of LOCOMOTIVES
  - of STORAGE and FUELING FACILITIES

Nalco's series of Fuel Oil Treatments are enabling railroads to successfully use fuel oils that, untreated, would cause serious difficulties in both storage systems and locomotives.

Fuel oil cost savings achieved with Nalco Treatments are only part of the picture: better fuel combustion; sludge-free tanks, valves, pipes and injectors add further savings in maintenance and increase over-all operating efficiency.

Full details on Nalco Fuel Oil Treatments will be sent promptly upon request. Call your Nalco Representative, or write direct.

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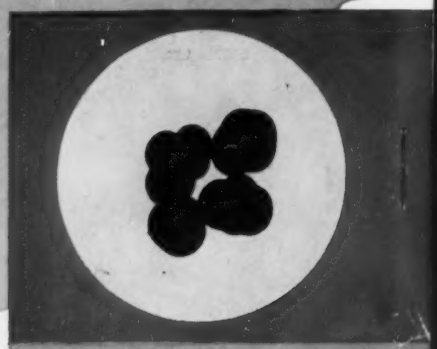
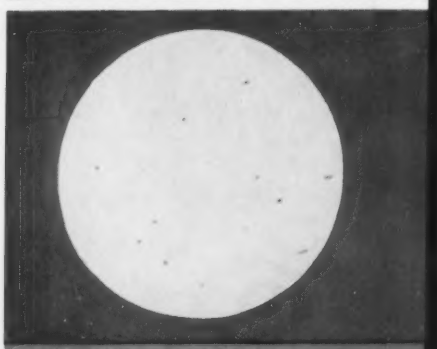


UNTREATED lower-cost fuel oil sample, magnified 8400X, shows objectionable sludge particles that cause poor combustion, clogged filters and sticking injectors.



TREATED, same lower-cost fuel oil, same magnification as above, shows how Nalco SR-158D disperses sludge, reduces particle size.

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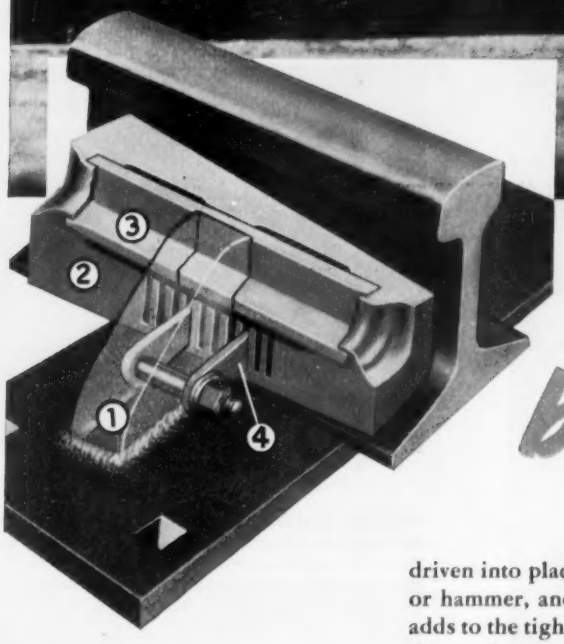

...with this brace on duty

Pick out a particularly tough spot on your right of way: a cross-over, a high-speed turnout, or the high-side rail on a sharp curve. *That's* the spot where Bethlehem's 811 Rail Brace will excel!

Consider the 811's design for a moment, and you'll see why. The brace itself (1) is welded to the plate on which the running rail rests. A forged wedge (2), which fits snugly against the rail web and flange, is driven into place with a spike maul or hammer, and a steel spring (3) adds to the tightness of the fit. With the wedge in position to assure proper gage, the pawls (4) are turned down into the slots, giving a positive lock.

Simple, yes, and foolproof. No matter how hard the thrust, how sharp the impact, the 811 won't shake loose, won't pop out of place. The rail has to stay put when this brace is on duty.

Plenty of 811 Rail Braces are keeping rails in their place all over the country. A Bethlehem engineer will be glad to take you to a nearby installation so that you can inspect it at first hand. You can get in touch with him through the nearest Bethlehem sales office.

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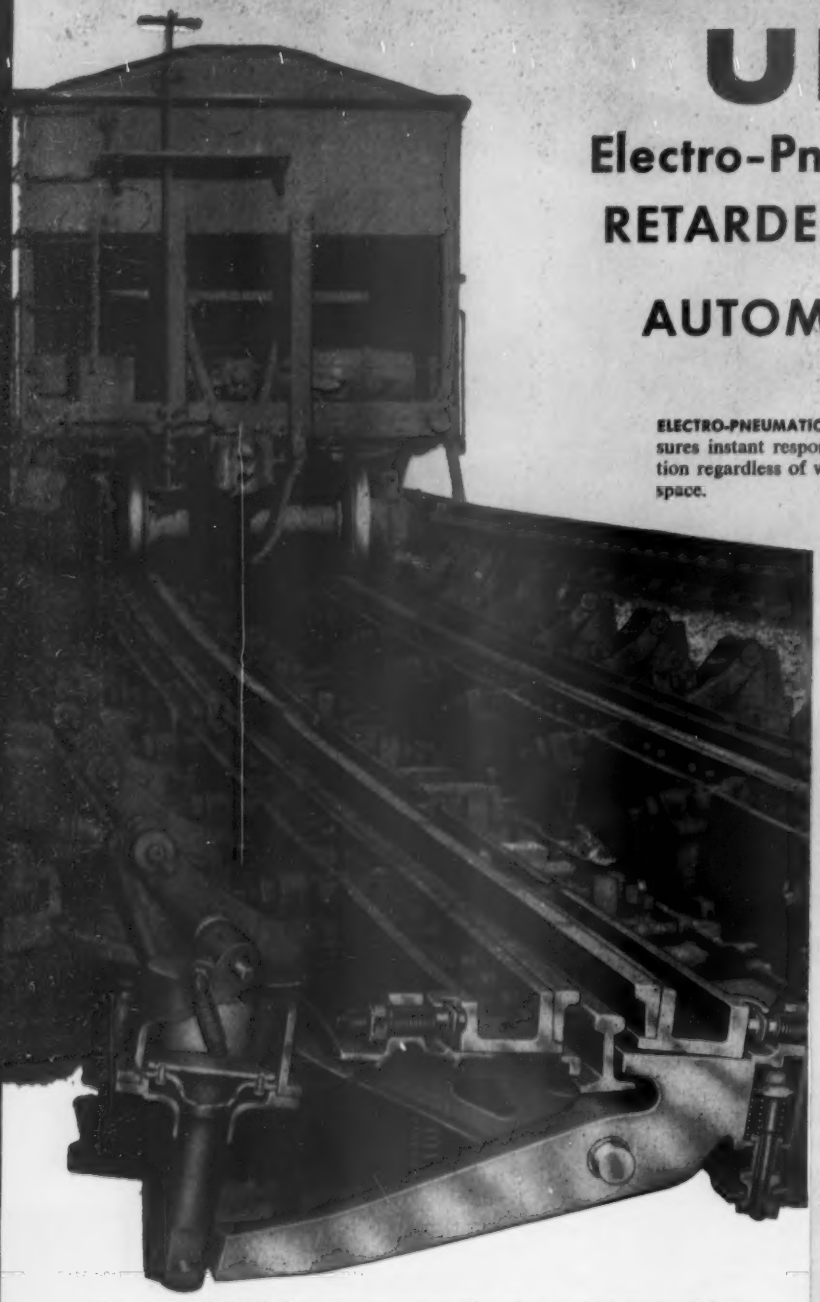
BETHLEHEM STEEL

Bethlehem 811 Rail Brace

Speed freight-car classification, reduce damage claims with

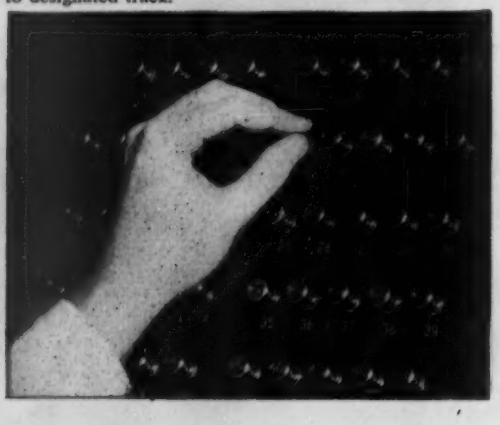
UNION

Electro-Pneumatic RETARDERS, RETARDER SPEED CONTROL AND AUTOMATIC SWITCHING

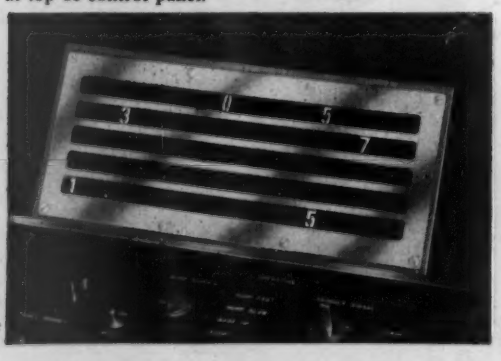


ELECTRO-PNEUMATIC OPERATION of UNION Retarder assures instant response to controls and uniform retardation regardless of wheel widths. Unit construction saves space.

PRESSING ONE PUSHBUTTON on the UNION control panel automatically positions switches as cut of cars proceeds to designated track.



ADVANCE SELECTION of routes for as many as five cuts can be made. Selected routes are registered on indicator at top of control panel.



DESIRED SPEED for each cut leaving a retarder is selected by simply operating one of six levers to "Light" car or "Heavy" car position. Retarder operates automatically to reduce speed of cut to that selected.

YOU can substantially reduce car handling time and damage claims in your classification yards with UNION Retarders combined with Retarder Speed Control and Automatic Switching. Faster classification results in quicker train departures and earlier deliveries to industries and connecting railroads.

From one control panel in a strategically located tower one operator not only can handle all classification switching, but also can accurately adjust car speed for proper coupling. This materially reduces wear and tear on cars and possible damage to lading.

Write for complete information.

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DIVISION OF WESTINGHOUSE AIR BRAKE COMPANY

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October 18, 1954 **Vol. 137, No. 16**

Week at a Glance

High water hit Chicago area railroads hard last week when record-breaking rainfall swelled rivers. Union Station couldn't be used for a while, and still isn't functioning normally. 7

Truckers' opposition to piggyback tariffs of Eastern railroads didn't materialize at last week's ICC hearings, where a witness demonstrated that on the PRR even the first months' experimental service more than met out-of-pocket costs. 8

FORUM—AAR activity reflects the ability and zeal of its members. It can accomplish more for the railroads if the railroads are convinced of the soundness of more projects that are logically association functions. 53

Is the Post Office fooling itself? *Railway Age* presents a special report thoroughly analyzing that department's present policies concerning the transportation of mail and what they mean to the railroads. 54

Mechanically cooled "reefers" are working out advantageously in regular service for Fruit Growers Express and associated lines; their fleet is being enlarged. 62

"Grass roots" public relations activities are paying off in communities where Eastern railroads have set up local committees to develop an understanding and sympathetic public opinion. 65

Nashville's Radnor yards of the L&N and NC&StL represent a $15-million investment by these roads in modern facilities to move freight faster. 72 and 74

BRIEFS

"It's high time that the chief executive officers of the individual companies comprising the American railway

Is your Railroad getting its share...

of this huge new revenue?

Here's a startling fact! Last year motorists drove approximately 500 billion miles between cities! *This one fact* represents your biggest and most persistent competition . . . therefore, it also offers your greatest source of new passenger revenue!

Hertz has effective solution! People drive long, tiring, hazardous road miles *not* because they want to drive . . . but frequently because *they need a car at their destination.* Hence, the Hertz Rail-Auto Plan strikes at the very core of city-to-city driving:

It sells rail travel to travelers for greater comfort and speed . . . and a car from Hertz upon arrival for their private use.

Hertz Rail-Auto Plan brings startling results! As promoted by Hertz with the ever-increasing cooperation of railroads, this Plan has brought increased revenue to both Hertz and the railroads:

> **Last year alone, people who rented cars from Hertz at their railroad destinations, traveled approximately 136 million miles on railroads! And this is most important! Questionnaires showed that most of these passengers traveled these rail miles mainly because they knew they could rent a car from Hertz upon arrival!**

Hertz advertising continually produces increasing revenue! Hertz spends nearly $1,000,000 annually in leading national magazines, to promote the Rail-Auto Plan. Millions of readers know about the convenience, safety, comfort and time-saving features of this Plan. *They accept and demand* Hertz as the finest Rent-A-Car service . . . with nearly 850 offices in over 550 cities throughout the world! More than 1,500,000 travelers who now hold Hertz Charge Cards and Courtesy Cards . . . the many thousands who have Rail Credit Cards . . . and thousands of non-holders . . . constantly rent and enjoy clean new cars with all gasoline, oil, Public Liability, Property Damage, Fire and Theft Insurance, and $100.00 deductible collision protection included in the low rate—*at no extra cost!*

How your Railroad Can Help Win Huge Additional Revenue

1. In all your general advertising, urge travelers to use the Rail-Auto Plan. Explain its many advantages.

2. Use displays in your ticket offices.

3. Advertise the Plan in all your timetables.

4. Tell your ticket agents about Hertz 10% commission. Urge them to ask this simple question of all passengers: **May I reserve a Hertz car at your destination?** It takes only a few moments to fill out the reservation forms. Upon completion of the car rental at the passenger's destination, the Hertz [illegible] will pay 10% commission on total rental charge to your agents.

5. To further promote Rail-Auto Travel, write us today for small plastic signs for your ticket agents' windows. They display this message: Reserve your Hertz Rent-A-Car from your ticket agent.

TRY THE HERTZ RAIL-AUTO PLAN YOURSELF!

See for yourself how the Hertz Rail-Auto Plan offers great convenience . . . comfort . . . and economy in time and money to passengers. Enjoy a clean, new car from Hertz . . . drive it as your own . . . for as long as you please . . . wherever you please. Try it next time you travel. Prove it to yourself . . . and you'll urge others to use it also.

WRITE today for additional information . . . reservation forms and other material your agents may need to promote the profitable Rail-Auto Plan.

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Current Statistics

Operating revenues, eight months	
1954	$ 6,193,871,103
1953	7,177,986,817
Operating expenses, eight months	
1954	$ 4,939,611,628
1953	5 413,836,296
Taxes, eight months	
1954	$ 583,988,932
1953	862,092,653
Net railway operating income, eight months	
1954	$ 500,409,102
1953	744,877,972
Net income, estimated, eight months	
1954	$ 337,000 000
1953	571,000,000
Average price railroad stocks	
October 12, 1954	70.10
October 13, 1953	57.85
Carloading, revenue freight	
Forty weeks, 1954	25 753,055
Forty weeks, 1953	29,878,964
Average daily freight car surplus	
October 9, 1954	54,498
October 10, 1953	6,867
Average daily freight car shortage	
October 9, 1954	2,195
October 10, 1953	4,994
Freight cars on order	
September 1, 1954	13,013
September 1, 1953	45,735
Freight cars delivered	
August 1954	2,297
August 1953	5,557

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Week at a Glance CONTINUED

industry give diligent, searching thought to the word 'survival.' It is of the greatest urgency that we do so, and that we dedicate ourselves to seeking and achieving a unity of purpose and action in our common responsibility to assure the survival of the railway industry, and through that the survival of individual companies." —*John Budd, president of the Great Northern, before the Western Railway Club, Chicago.*

A basic transportation policy should provide, under private operation, adequate transportation service and national security without government competition and regulated only as required to protect the public interest. And industry should support this kind of national policy. So a National Chemical Exposition symposium in Chicago was admonished by D. G. Ward, director of transportation of Olin Mathieson Chemical Corporation.

A 2¼-cents-per-mile round-trip coach fare is being considered by the Eastern railroads, several of which are in the mood to try it.

Television, of the so-called wired type, is being tested at Englewood passenger station, in Chicago. With it, the stationmaster can look either way along Rock Island or Pennsylvania tracks and platforms, to observe approach and departure of trains. The one camera is on an 8-ft vertical shaft near the crossing of the two railroads. Alongside the "viewer" in the stationmaster's office is a motor control, by which he can direct his camera "eye" to "look" in any of the four directions.

When the railway car ferry "Pere Marquette 21" returned to service October 4, the Chesapeake & Ohio's Great Lakes fleet modernization program reached completion. Lengthened, repowered and reboilered, the "21" can match the speed of her six sister ships (18 mph) in trans-Lake Michigan service. The vessels, in addition to handling railway freight cars, accommodate passengers and passenger automobiles.

KEEP YOUR PASSENGERS COOL AND HAPPY

. . . with powerful Exide-Ironclad batteries!

PASSENGERS LIKE the comforts of improved coach facilities. Good lighting and air-conditioning create goodwill and repeat business. When dependable Exide-Ironclad batteries are on the job your customers get the traveling comforts you are providing. Exides are built to withstand hard, continuous service. They give worry-free performance and maintain high, uniform voltage throughout long stops. Also, because of lower costs for operation, maintenance and depreciation Exide-Ironclad batteries are your best power buy . . . AT ANY PRICE!

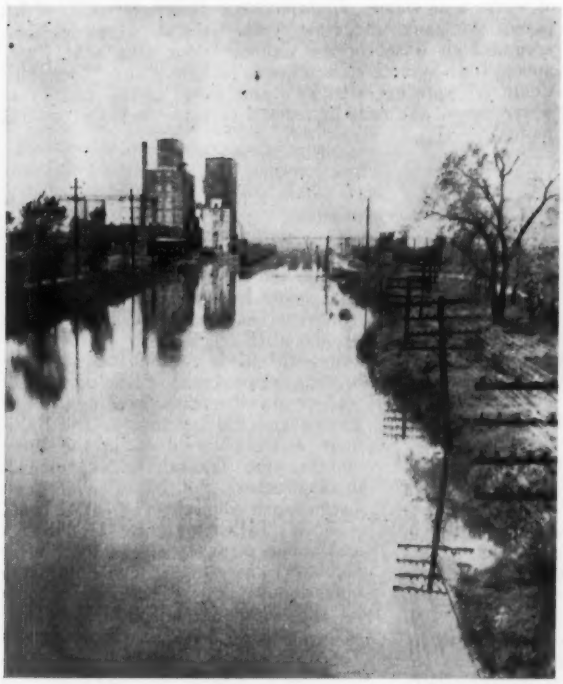
THE POSITIVE PLATES are the heart of any battery. Only Exide uses a slotted tube construction. By use of tubes, more active material is exposed to the electrolyte, providing *greater power.* Also, more active material is retained, *giving longer working life.*

IMPROVED Exide-Ironclads now have power tubes made from *non-oxidizing* plastic for longest battery life. For full details, call your Exide sales engineer—write for Form 5010 (Installation and Maintenance of Car Lighting and Air Conditioning Batteries).

Your best power buy
. . . AT ANY PRICE!

Exide®
IRONCLAD® BATTERIES

Exide INDUSTRIAL DIVISION, The Electric Storage Battery Company, Philadelphia 2, Pa.



UNITED PRESS PHOTOS

OTHER ROADS WERE AFFECTED as run-off water from 30 hours of continuous rain filled every low spot. These are the tracks of the Indiana Harbor Belt at Whiting, Ind. Dearborn Station roads were cut off from their passenger terminal for 24 hours by a flooded underpass. Santa Fe trains were detoured around high water at Lockport, Ill.

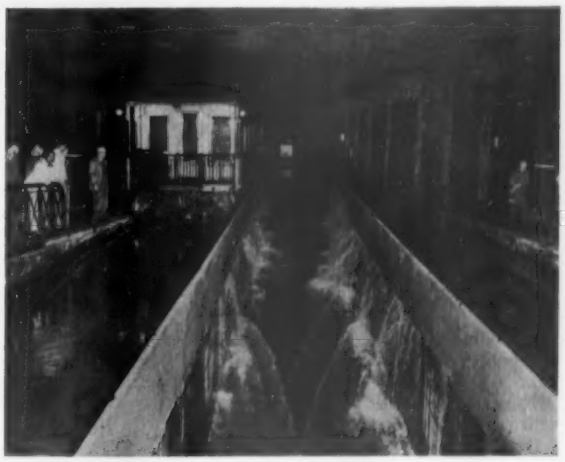
High Water Hampers Chicago Railroads

Union Station hardest hit—Full restoration of station services may take weeks—additional operating and cleanup costs estimated to exceed $500,000

Water was more than 21 feet deep in the sub-basement of Chicago Union Station on the morning of October 11. The terminal's entire operation was halted the evening before when abnormally heavy rains caused the swollen Chicago river to burst through a concrete retaining wall, flooding the building and considerable trackage. Water poured over the tracks and down the baggage platform ramps, eventually filling the entire basement to a level of about 26 inches. The electrical substation in a sub-basement was completely submerged.

As the water began to pour into the basement, all power was cut off and the entire building was plunged into darkness. Trains in position were loaded by means of flashlights in the hands of redcaps and clerks. More than 1,000 persons were estimated to be in the building at that time. Later the Chicago Fire Deparment brought three searchlight wagons to the scene and these remained to provide illumination in the main concourse as some train service was restored on the evening of the 11th. Emergency lighting was provided to key Milwaukee and Pennsylvania operating department offices in the building within a few hours. Pumping of the basement was still going on as this issue went to press. A temporary transformer substation will be installed with power to be furnished by a special line.

PASSENGERS DETRAINED at outlying points and made their way downtown by chartered buses or public transportation. These Burlington commuters are leaving their train at the road's 18th street coach yard. Milwaukee passengers were handled by bus from Western Avenue coach yard; Pennsylvania passengers went by bus from Englewood station.



UNION STATION was put out of service on the evening of October 10 when a retaining wall gave 'way and the Chicago river, swollen from the heaviest rain recorded in 69 years, poured over tracks and cascaded down ramps to the terminal's mail, baggage, express and electric power facilities in the basement.

Outlying Stations Used.—With Union Station approach tracks under as much as three feet of water, the Milwaukee terminated all through and suburban trains at the station near its Western Avenue coach yard. Buses were chartered to handle passengers for the remainder of their trip. The

Pennsylvania terminated its trains at the Englewood station. The Gulf, Mobile & Ohio made arrangements to use the Baltimore & Ohio's Grand Central Terminal and the Burlington halted all trains at its 18th St. coach yard. Later, the Milwaukee arranged to operate some of its streamliners from the Chicago & North Western passenger terminal.

Train operation was partially restored at Union Station on October 12 but spokesmen pointed out that the station was without auxiliary services of any kind; that all concessions were closed; that there was no water for drinking or for washroom purposes; and that elevators and other building services were inoperative. Telephone and railroad telegraph services were also out of commsision but were being restored gradually as power become available.

Other Roads Detour.—Elsewhere in the Chicago area rail services were subject to delay because of high water. Dearborn Station was out of service for a number of hours on October 11 because of a flooded underpass. As the waters receded, some trains were handled out of the terminal by steam locomotives and later full service was restored. Tracks of the Indiana Harbor Belt were under five to seven feet of water near Dolton, Ill., and some passenger trains of its parent company, the New York Central, were detoured around high water in the Calumet river area near Hammond, Ind. Several streamliners, including the "Twentieth Century," were operated by steam power in this district as water topped the rails by more than three inches at several points.

Piggyback

Truckers Drop Piggyback Fight

October 12 hearing showed how opposition to tariffs has dwindled; only 478 trailers rode flat cars in three months

Hearings in connection with the Interstate Commerce Commission's investigation of piggyback tariffs published by six Eastern railroads came to a quick end in Washington on October 12, the opposition having dwindled to practically none since the previous sessions in July.

Last week's hearing was called to receive railroad testimony with respect to piggyback cost evidence demanded by trucking interests. It saw the truckers limit their "case" to cross-examination of one railroad witness, and a joint statement by their counsel.

Thus the further hearing ended on its opening day. Examiner M. L. Boat announced he will issue a proposed report, following his study of briefs which are due November 30. The tariffs in issue have been in effect since July. The commission originally suspended them, but then lifted the suspension while continuing the investigation (*Railway Age*, August 2, page 6).

Piggybacking Pays—Among the railroad exhibits was a Pennsylvania statement showing how revenue results of handling various assumed movements in piggyback service would compare with the yield from the same movements in box-car service. Loads were assumed to be equal to minimum weights specified in applicable piggyback and box-car tariffs, and the piggyback figures assumed a two-trailers-per-flat-car operation. The comparison indicated that piggyback service would consistently provide more revenue per car and per car-mile (sometimes more than twice as much) as the box-car operation.

"Real possibilities" for the trailer-on-flat-car system were envisioned by a PRR officer interviewed after the hearing. He said his road had almost tripled the number of t-o-f-c shipments between July and September and added that the experiments had provided "a very substantial margin over out-of-pocket costs" thus far.

He tended to discount a statement made by the truckers' counsel, Roland Rice and Edgar Watkins, who said the "piggyback" system "has not become a serious competitive factor." Moreover, they declared, they had learned that "the limited service rendered was being performed at a loss to the railroads."

More and more rail-trailer shipments have been made by the six roads since their tariffs became effective, but only 478 shipments in all were made by the roads in the three-month period, more than half of these by the PRR.

Reports filed by the roads at the hearing showed the PRR moved 29 trailers on flat cars in July, 62 in August and 159 last month. The Baltimore & Ohio moved 66 in the three months; the Wabash 48, almost all in September; the Nickel Plate and Lackawanna 41 each; and the Erie 36.

R. W. Talbot, assistant to the general traffic manager of the PRR testified at some length, describing the operation as a system which ought to be allowed to develop naturally. Only other witness for the railroads was E. A. Schoefield, freight traffic manager, B&O, who merely submitted the statistical reports for his road.

Legal issues, as to whether the roads might be violating regulations governing "terminal areas" and "substituted service" were raised while Mr. Talbot was on the stand, but Examiner Boat cut short this line of cross-examination by the truckers' attorneys and the attorney for the Brooklyn Eastern District Terminal. Mr. Boat affirmed a stand taken by the PRR assistant general counsel, W. B. Johnson, with the statement "we cannot resolve these legal arguments here."

Others taking part in the hearing included John H. Lerbs of the Hoboken Manufacturers, who opposed the tariffs as harmful to his business; and Marion M. McClelland, vice-president and general manager of the Brooklyn Terminal, who also opposed the tariffs on competitive grounds.

MILWAUKEE, C&NW TO STUDY "COORDINATION ECONOMIES"

Directors of the Chicago & North Western and the Milwaukee have announced appointment of a joint committee to ". . . supervise and direct a study to be made of both railroads looking toward economies which may be realized through coordinating traffic, operating, maintenance and other departments that would benefit both railroads." In a statement to the press issued by the Milwaukee on October 13, it was revealed that the committee would consist of members of the two boards.

Whether the statement presaged a return to the thinking that the two roads could be partially merged—a subject of detailed studies by the Reconstruction Finance Corporation during 1937 and 1938—or whether it is simply the preliminary to pooling of certain duplicated lines and facilities, was the subject of considerable speculation in railroad circles.

Monon Preparing Two Piggyback Routes

The Chicago, Indianapolis & Louisville has announced preparations for overnight piggyback service between Chicago and Indianapolis and Chicago and Louisville. Construction of ramps and platforms in the three cities' terminal areas has begun and plans have been completed for conversion of some standard flat cars for the service.

Tariffs naming truck-competitive rates are to be published "at an early date" and operations are expected to

begin before the first of the year. The Monon is the first road to announce such a service between the three cities.

KCS Testing Piggyback, Dallas to New Orleans

The Kansas City Southern has started a "trial period" of trailer-on-flat-car operations between Dallas and New Orleans.

The traffic moves under bills of the road's highway transport subsidiary and, initially at least, is predominantly in truck loads rather than LCL. The trailers are those of the subsidiary company or of other highway carriers with which the rail subsidiary normally interchanges. The service has not been made available to motor common carriers operating parallel to the railroad, however.

J. P. Gunther, assistant general freight agent at Kansas City, Mo., is in charge of the operation.

Operations

ICC Couldn't Determine Cause of L&N Derailment

The Interstate Commerce Commission has reported that it was unable to determine the cause of a derailment which occurred July 3 on the Louisville & Nashville near Radnor, Tenn.

The train involved was a passenger train, and the accident resulted in the death of one passenger, and the injury of 28 passengers, 2 dining-car employees, and 1 train porter. The commission's report (No. 3585) was by Commissioner Clarke.

It said the commission's investigators explored various possible causes of the accident, but the only definite statement possible was that it was caused by "some condition which developed under the train involved."

Marks on the track structure indicated that "there may have been dragging equipment . . . or an obstruction on the track." Conditions were observed which "suggested the possibility that the track may have kinked or buckled under the train." The L&N division engineer was of the opinion that some object fell from the train to the track structure and was struck by a wheel. Examination of the derailed equipment failed to produce evidence to that effect, but some of the derailed cars were "considerably damaged."

The derailment occurred on a 2 deg 30 min. curve. The train was No. 98 (the "Pan-American"), northbound from New Orleans, La., to Cincinnati, Ohio. It consisted of a two-unit diesel-electric locomotive and 11 cars—all of "conventional all-steel" construction, except the first (a baggage car) which was of steel underframe construction, and the tenth (a sleeper) which was of "lightweight steel" construction.

The train was traveling at an estimated speed of 45 mph in territory where its speed limit was 50 mph. In the derailment, the front truck of the third car, the fourth to ninth cars, and the front truck of the tenth car left the rails. Up to the time of the accident, members of the crew were "unaware of anything being wrong," the commission reported.

Competitive Transport

Users Should Support Highways

That principle should be part of government policy, AAR tells Eisenhower advisory group

The railroad industry's presentation to President Eisenhower's Advisory Committee on a National Highway Program takes the position that highways "should be self-supporting on the basis of user charges, with equitable and adequate payments required from heavy trucks that use highways as freightways."

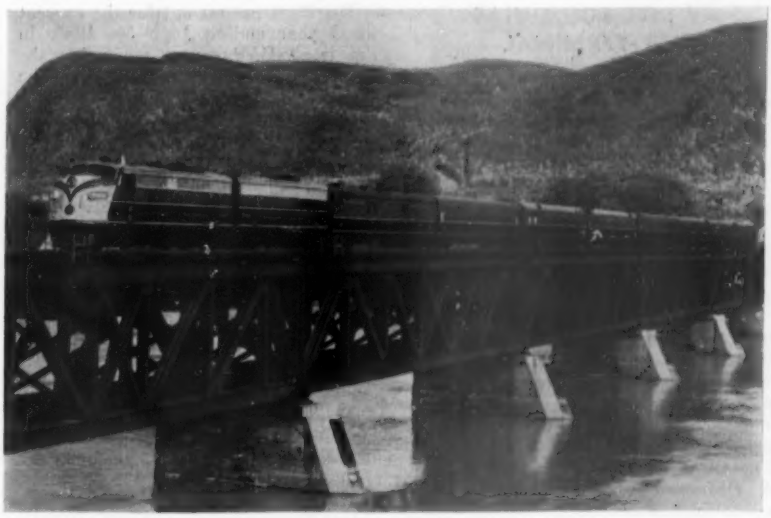
That "principle" should be "a primary part of government policy toward any highway program," said the railroads' statement, filed by the Association of American Railroads. It also said that failure to adhere to the principle of adequate motor vehicle charges distorts sound competitive relationships between rail and truck transportation because "the economic scales are tilted in favor of that method of transportation which has some of its costs borne out of the public purse and by general taxpayers."

Warning that "wrong methods" of financing highways could have "devastating impact" upon other means of transportation, the AAR declared:

"It would be reckless indeed to undermine with unsound financing of highways our railroad system upon which the nation must continue to rely as the primary facility of defense transportation."

Citing the transportation record of World War II when more than 90% of all domestic military freight moved by rail, the statement emphasized the superior productivity and economies in the use of manpower and fuel in the rail method of transportation and said that such factors, of compelling importance in time of peace, become "of stark necessity," in wartime.

It went on to say that "alleged requirements of the national defense should not be invoked as support for



NEWEST PASSENGER TRAIN IN CANADA, the "Ocean Limited" (above), went into regular service October 5 on the Canadian National between Montreal and Halifax. Part of a 359-car order, the train, dressed in the road's new colors of green, black and gold, consists of a coach, dinette, diner, parlor-grill, bedroom-buffet-lounge and sleeping cars.

increasing federal highway expenditures without giving necessary consideration to the indispensability, whether in peace or war, of a strong system of economical transportation by railroad."

Job of States—The association said that states should be encouraged "to take more vigorous action to improve their systems of highway user charges, and to take effective measures to protect highway facilities against abuse and destruction by heavy freight vehicles." States should not be relieved of this necessity by undue federal grants-in-aid for highway purposes, the AAR added.

The statement asserted that studies have proved motor fuel taxes an unsatisfactory method of applying user charges because consumption of fuel does not increase proportionally with increasing vehicle sizes and weights.

Mileage Tax Needed—"It is impossible," it continued, "to see an end to the spiraling process of highway capacity absorption by the heavy freight vehicle, followed by congestion and inadequacy, to be followed again by increasing highway expenditures, unless firm steps are taken to impose upon such vehicles charges commensurate with the costs which are fairly attributable to them. What is needed is a mileage form of tax, graduated by weight classes and directly variable with the actual use made of highway facilities in each particular state."

As to railway-highway crossing separation projects, the statement urged application by states and localities, with respect to all highways and streets, of the principle that the obligation of a railroad shall be limited to the value of benefits derived by it from the project.

IC MAY SELL LOUISVILLE PASSENGER TERMINAL

Abandonment of the Illinois Central's Louisville passenger station may be the result of train abandonment proceedings now pending before the Kentucky Railroad Commission. The road is seeking to drop its sole remaining Louisville service—a pair of trains called the "Irvin S. Cobb" operated round trip daily to Fulton, Ky., where connections are made with other through IC services.

If the commission permits dropping the service, the road's passenger station in Louisville will probably be acquired by the city in connection with a cross-town highway project. This would mean that other roads presently using this station — the Chesapeake & Ohio and the Baltimore & Ohio—would have to shift their operations to the Louisville & Nashville's Union station. The IC has told the Kentucky commission that it lost $713,000 in operating the pair of trains last year.

Pacific Coast May Get Three-Cent Mail by Air

The Post Office Department has proposed a new step in its "first-class-mail-by-air" experiment.

In a petition to the Civil Aeronautics Board on October 6, Postmaster General Summerfield asked for an order fixing rates on first class mail carried by four trunk airlines in California, Oregon and Washington.

The petition seeks to have a 19-cent per ton mile rate fixed "not later than November 1" so the service will be in operation in time for the "Christmas rush." United, Western, American and Trans World Airlines are those which would handle the service under present Post Office plans.

The service would take in Seattle, Wash.; Portland, Salem, Bend, Redmond, Eugene, Medford and Klamath Falls, Oregon; and San Francisco, Oakland, Sacramento, Stockton, Modesto, Merced, Salinas, Fresno, Visalia, Bakersfield, Los Angeles and San Diego, Cal.

Mr. Summerfield said the service would be justified because of the time saved in postal service to these cities and some 300 other mail points served by them. The proposal is an expansion of a similar postal experiment involving Chicago, New York City, Washington and three Florida cities (*Railway Age*, October 4, page 12).

Bases of "Service" Air Mail Pay Vary Widely

The Civil Aeronautics Board has fixed "service rates" of mail pay for certificated air lines on bases which range from 45 cents per ton-mile to $2.58 per ton-mile.

The rates are set out for the current fiscal year ending June 30, 1955, in the latest CAB report separating the "service" pay from the "subsidy." The "service" rate is the charge paid by the Post Office Department for carriage of air mail. Any additional mail pay received by the air lines is counted as subsidy and paid out of CAB funds.

The 45-cent rate is the "service" rate fixed for six large trunk-line air carriers; and, since they can operate without additional mail pay, they are shown in the report to be unsubsidized. They are American, Eastern, National, Northwest, Trans World, and United.

Also shown without subsidy are three other trunk lines—Capital, Delta and Western, which have ton-mile "service" rates of 46.8 cents, 51 cents and 50 cents, respectively. Meanwhile, Braniff, with a "service" rate of 52.66 cents, is expected to get "subsidy" payments amounting to $1,378,000 in fiscal '55.

Biggest subsidy of the fiscal year, $3,001,000, is expected to go to Frontier, which is expected to get only $101,000 from its "service" rate of 91 cents per ton-mile. The $2.58 "service" rate applies to Central and Lake Central and to three helicopter operators. The latter are expected to get $331,000 from the "service" rate and $2,685,000 in subsidies.

Prospective fiscal '55 payments to all airlines covered were put at $69,707,000, of which $36,322,000 was called "service pay" and $33,385,000 "subsidy." As the board pointed out, its separations are based on several assumptions, including one which accepted (without appraisal as to economic justification) the route structures of the airlines as they were constituted on August 15, 1954.

Shortly after the report was issued, CAB served notice of a proposal to establish a new formula for setting "service" rates for the 13 domestic trunk air lines. The new rates would be retroactive to April 1, 1954, and they would cut the "service" pay of the 13 carriers by about $3¼ million annually, CAB said.

ICC Checking Riss On Use of Fishing Camp

Riss & Co., trucker suing the railroads for $90 million, is under investigation by the Interstate Commerce Commission for possible use of a Canadian lodge to give rebates to customers.

Acting on its own motion, the commission instituted an "investigation of entertainment expenses" incurred at a "lodge or fishing camp" in Ontario where the truck company assertedly brought "shippers, shippers' employes and other persons" at no cost to them for travel or entertainment.

Such operation of the camp may, the commission states, be illegal in that Riss "may have offered, granted or given rebates, concessions or discriminations."

Also involved in the investigation is the manner of keeping records of the operations and maintenance of the camp and an alleged failure to keep personnel records pertaining to it. The investigation is directed into "all matters connected therewith or related" to the use of the lodge.

Riss filed suit last month against 85 major railroads charging them with conspiring against it. (*Railway Age*, September 27, page 7).

RRs Seen Out of Passenger Business Within 25 Years

Airplanes will entirely replace railroads for long-haul passenger transportation "well within" the next 25 years, Austin J. Tobin, executive director of the Port of New York Authority, said at a recent meeting of the Regional Plan Association in New York. "Growing highway networks have been siphoning off much of the shorter-haul passenger traffic to buses and private automobiles," he added, "and the new national turnpike and

highway program will increase this trend."

The New York metropolitan region's primary concern in the next 25 years of railroading "is in the field of terminal facilities," Mr. Tobin continued. "Railroads have missed great opportunities to improve their terminals here and to reduce their heavy and duplicative costs. They have rejected repeated opportunities to join with each other and with publi agencies in the development of unified freight facilities. Their competitors in the air and on the highways have been more flexible and, if you will, more opportunistic, in the use of common airports, union bus stations, union truck terminals and other joint ventures which facilitate usage and reduce costs.

"In some cities," Mr. Tobin went on, "union railroad terminals for passengers or freight have been achieved after long negotiations. In the New York area, despite repeated offers of public cooperation in establishing union inland freight stations, joint waterfront pier stations, combined produce delivery terminals, and unified lighterage facilities, very little has been accomplished. I have hopes that the time will come when progressive railroad management will take a more positive position here towards development of joint terminal facilities. I believe that much can be done to stem the tide running against railroads by such joint facilities which would make it possible for the shipper to consolidate his local cartage operations and would relieve railroads of some of their high terminal costs."

Rates & Fares

SALES AND SERVICE representatives of the Norfolk & Western, who met in Cincinnati, October 7-8. Representatives from N&W offices in principal cities throughout the nation attended this, the third such annual meeting.

N&W Continues Faith in Coal

Tests of experimental steam turbine-electric locomotive show encouraging thermal performance

Pricing to meet competition—based on the inherent advantages of railroads—was one of the themes of the Norfolk & Western Sales and Service Conference October 7 and 8 in Cincinnati. Enthusiastic response greeted an announcement by F. S. Baird, vice-president—traffic, that the recent adjustment of rates on cigarettes and manufactured tobacco from the South had brought a bigger share of this profitable traffic back to the rails. Third in a series of postwar Sales and Service Conferences, this was the first attended by coal and passenger traffic representatives.

The future of coal came in for considerable discussion. N&W President R. H. Smith predicted that coal would be "the nation's principal source of fuel for centuries to come." He pointed out that production-wise the coal industry is not worse off than the steel industry, and steel, which requires a ton of coal to make a ton of steel, is preparing for further expansion.

Turning to experiments with "Jawn Henry," the N&W's new steam turbine-electric locomotive (*Railway Age*, July 26, page 30), Mr. Smith declared it has already shown an overall thermal efficiency on steady pulls in the neighborhood of 1½ times that of the conventional reciprocating locomotive. It is the hope that final efficiency will be considerably higher. "Coal as a locomotive fuel has the basic advantage that heat energy (Btu) can still be purchased in the form of coal for less than one-third of what it costs in the form of oil."

"The railroad is the only true mass transportation agency," said C. P. Blair, general superintendent of the road's Western division. The Norfolk & Western's 1953 record of 71,991 gross ton-miles per freight train-hour was accomplished by heavy loading and long trains. In 1923 the N&W used 676 locomotives to handle 22½ billion gross ton-miles, while in 1953 263 locomotives moved more than 32¼ billin gross ton-miles.

In two panel discussions, N&W freight solicitors heard informal talks from officers and exchanged suggestions for increasing traffic and improving service.

To help sell the railroad's service and the advantages of its sites for business and industry, said R. R. Horner, advertising manager, the N&W in one year published 1,800 advertisements in 30-odd magazines and 212 newspapers, with a total annual guaranteed circulation of 156 million at a cost of less than 3 mills per reader.

PRESIDENT R. H. Smith delivered a prediction of future prosperity for the coal industry and the railroad.

Eastern Roads Assail Joint Rate Divisions

Joint rate divisions on traffic between eastern roads and western trunk lines have been assailed in a request

by the eastern roads for an investigation of the divisions by the Interstate Commerce Commission.

Docketed as No. 31627, the complaint excepts rates on coal, coal briquettes and iron ore and calls for a more favorable division of the rates for the eastern roads. As in the still-pending docket No. 31503, eastern vs. mountain Pacific territory roads, (*Railway Age*, May 3, page 8) the complaint states that changed conditions since the present divisions were established require adjustments.

Railroads Lauded for Rate Cuts in Drought

The nation's railroads have won the thanks of President Eisenhower and Secretary of Agriculture Benson for their 50% cut in rates on hay shipped into 15 drought area states.

The reduced rates went into effect October 1, after being announced September 28 in a telegram to the President from William T. Faricy, president of the Association of American Railroads. This is the second successive year in which railroads have answered an appeal from the Department of Agriculture, western roads' contribution in the 1953 drought being estimated at more than $20,000,000.

The President said he was "profoundly gratified" and Mr. Benson said the railroad assistance would make his own program of aid to stricken farmers more widely available. The rate cuts expire December 15.

Labor & Wages

REA and Clerks Reach Agreement

An agreement providing for wage increases, extended vacations and minor changes in working rules has been reached by the Railway Express Agency and the Brotherhood of Railway Clerks, Freight Handlers, Express and Station Employees. The agreement followed negotiations and mediation under auspices of the National Mediation Board, based upon demands filed by the union in June 1953.

The agreement provides for an hourly wage increase of 5 cents, retroactive to December 16, 1953, for REA employees represented by the brotherhood, excepting employees who, by previous agreement, received hourly increases of at least 5 cents during 1954. The latter employees will receive an hourly increase of 5 cents retroactive from December 16, 1953, to the effective date of such 1954 increases.

Also provided for by the agreement is an addition to the basic wage rates of an accumulated 13-cents-an-hour cost-of-living adjustment, as well as cancellation of a cost-of-living agreement in existence since February 1951. The agreement increased vacations from two to three weeks for employees with 15 years or more of service.

Figures of the Week

Freight Car Loadings

Loadings of revenue freight in the week ended October 9 totaled 703,193 cars, the Association of American Railroads announced on October 14. This was a decrease of 18,690 cars, or 2.6%, compared with the previous week; a decrease of 100,873 cars, or 12.5%, compared with the corresponding week last year; and a decrease of 139,604 cars, or 16.6%, comared with the equivalent 1952 week.

Loadings of revenue freight for the week ended October 2 totaled 721,883 cars; the summary for that week, compiled by the Car Service Division, A.A.R., follow:

REVENUE FREIGHT CAR LOADINGS
For the week ended Saturday, October 2

District	1954	1953	1952
Eastern	113,551	137,548	140,096
Allegheny	127,501	156,882	166,654
Pocahontas	51,747	56,643	54,772
Southern	126,348	126,093	133,600
Northwestern	113,066	140,996	152,942
Central Western	130,142	130,268	134,819
Southwestern	59,528	64,104	69,037
Total Western Districts	302,736	335,368	356,798
Total All Roads	721,883	812,534	851,920
Commodities:			
Grain and grain products	54,870	55,316	52,960
Livestock	14,009	13,977	15,234
Coal	121,649	135,900	135,923
Coke	8,469	12,915	14,843
Forest products	45,863	43,010	45,885
Ore	53,621	80,012	95,306
Merchandise l.c.l.	65,784	71,800	75,436
Miscellaneous	357,618	399,604	416,333
October 2	721,883	812,534	851,920
September 25	710,215	819,709	862,065
September 18	711,228	823,883	873,596
September 11	601,525	710,554	881,291
September 4	688,492	799,080	746,882
Cumulative total 40 weeks	25,753,055	29,878,964	28,869,816

Law & Regulation

Non-Interchange Cars Get Reprieve in AB Brake Case

The pattern of relief from its AB brake order which the Interstate Commerce Commission will grant for non-interchange, non-revenue cars has been further developed in a recent group of commission orders.

Some of the orders disposed of railroad petitions for relief with respect to non-interchange cars now operated in non-revenue service but likely to be retired within a year or two. These orders further postponed, until December 31, 1956, the effective date of the AB brake order insofar as it applies to such cars—if they are operated in trains of not exceeding 50 cars and at speeds not exceeding 40 mph.

Others of the recent orders disposed of petitions for relief with respect to non-interchange camp and work cars. There the pattern of relief indicated some time ago (*Railway Age*, April 19, page 5) was followed. The effective date of the AB brake order was postponed indefinitely with respect to such cars—if they are operated in trains of not exceeding 20 cars and at speeds not exceeding 30 mph.

Expense Filing Rule Postponed

Division 1 of the Interstate Commerce Commission has postponed indefinitely, pending further study, a requirement for railroads to include statements of officers' and directors' expense allowances in their annual reports (*Railway Age*, July 26, page 62).

Safety

July Accidents

The Interstate Commerce Commission has released its Bureau of Transport Economics and Statistics preliminary summary of railroad accidents for July and the first seven months of 1954.

The compilations, subject to revision, follow:

Item	Month of July 1954	Month of July 1953	7 months ended with July 1954	7 months ended with July 1953
Number of train accidents*	620	782	4,319	5,242
Number of accidents resulting in casualties	35	42	270	315
Number of casualties in train, train-service and nontrain accidents:				
Trespassers:				
Killed	102	113	464	558
Injured	95	127	517	570
Passengers on trains:				
(a) In train accidents*				
Killed	..	1	..	20
Injured	30	79	168	415
(b) In train-service accidents				
Killed	..	1	6	13
Injured	153	182	1,004	1,037
Travelers not on trains:				
Killed	..	..	2	4
Injured	62	50	476	453
Employees on duty:				
Killed	15	31	122	181
Injured	1,368	1,752	9,210	11,321
All other nontrespassers:**				
Killed	78	120	768	901
Injured	329	327	2,851	3,056
Total—All classes of persons:				
Killed	195	266	1,362	1,677
Injured	2,037	2,517	14,226	16,852
Persons:				
Killed	81	109	713	841
Injured	186	174	1,902	2,023

* Train accidents (mostly collisions and derailments) are distinguished from train-service accidents by the fact that the former caused damage of $350 or more to railway property. Only a minor part of the total accidents result in casualties to persons, as noted above.

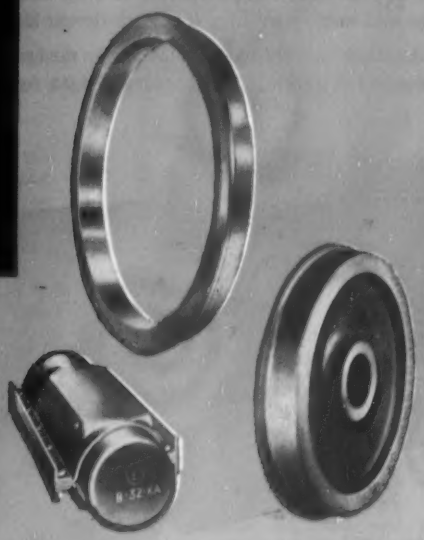
** Casualties to "Other nontrespassers" happen chiefly at highway grade crossings. Total highway grade-crossing casualties *for all classes of persons, including both trespassers and nontrespassers, were as follows:*

Leading the Way—Regardless! By Hungerford

We will be glad to send you enlarged copies of this Hungerford cartoon (without advertising copy) for posting on your office and shop bulletin boards, or a cut for your company magazine, at cost.

E Edgewater Steel Company

PITTSBURGH, PA.



Serving America's Railroads

ROLLED STEEL TIRES with ROLLED STEEL WHEELS AND DRAFT GEARS

Clark puts the driver where he belongs

. . . on the new

ELECTRIC TOWING TRACTOR

Clark's new electric towing tractor, rated up to 3000 lbs. breakaway drawbar pull, is the first *true* tractor-type electric machine on the market. The driver sits where he belongs—at the rear of the tractor, within arm's reach of the coupler. He does not have to get off the tractor to couple onto a load. He does not have to jockey around to get in position to hook-up, because he can see the coupler from his seat. This means time savings and energy savings (for both driver and batteries).

Another advantage of this basic design is the well balanced distribution of battery weight for both maximum driving and steering traction. Regardless of steep ramps or heavy pulls, there is no "bucking" with the maximum battery weight positioned within the wheelbase. And like Clark electric lift trucks, the new tractor is designed to work a longer cycle without recharging batteries—the maximum in battery efficiency.

- Easy on-and-off access
- Finger-tip direction control
- Rigid box-type frame: Heavy integral welded plates provide strength for bumping, pushing or pulling.
- Four speeds forward and reverse
- Four coupler types available
- Straight series wound motor: develops comparatively large increases in torque with only moderate increase in current draw; 36 to 48 volts; sealed-for-life bearings.
- Parts interchangeability: Many components are common to the Clark line of electric lift trucks.

For details, contact your local Clark dealer, listed under "Trucks, Industrial" in the Yellow Pages. Or write us direct for specifications.

CLARK EQUIPMENT

Industrial Truck Division
CLARK EQUIPMENT COMPANY
Battle Creek 24, Michigan

Equipment & Supplies

International Ry. Car Buys FGE Chicago Plant

The International Railway Car Company has taken over the former Fruit Growers Express property in East Chicago, Ind., including 50,000 sq ft of manufacturing space, about 2½ miles of track and approximately 13 acres of land. The facilities are currently being renovated and equipped for freight car rehabilitation. The cars to be rebuilt will be available for lease to railroads and industries under International's "Morrison Plan."

According to Herbert J. Biel, vice-president of the company at Chicago, some 2,000 cars are currently being negotiated for under the plan by trunk and short lines and industrial concerns. The new plant will be able to rehabilitate about 1,000 cars a year and is expected to employ about 100 persons. The new facilities will not displace the company's car repair facilities at Buffalo, N.Y., nor its caboose manufacturing plant at Kenton, Ohio. However, car repair work previously done at Kenton will ultimately be transferred to East Chicago and facilities thus relieved will be used for production of special cars, such as covered steel hoppers and piggyback flat cars.

Katy to Spend $4½ Million On Freight, Passenger Cars

Directors of the Missouri-Kansas-Texas have authorized purchase of 300 50½-ft and 200 40½-ft box cars and six coaches at an approximate cost of $4,500,000, from the Pullman-Standard Car Manufacturing Company. That the Katy was considering purchase of this equipment was reported in *Railway Age*, September 13, pages 13 and 39.

The coaches, to be finished in stainless steel matching the road's "Texas Special" equipment, are scheduled to be delivered in the 2nd quarter of 1955. All of the freight cars are to be built at Pullman-Standard's Bessemer, Ala., plant and are expected to be delivered in the 4th quarter of this year.

LOCOMOTIVES

Baldwin-Lima Gets Order For 50 Indian Locomotives

Baldwin-Lima-Hamilton Corporation has been given an $8,910,000 contract to build 50 steam locomotives for India as part of the foreign aid assistance program for that country.

India was granted $20 million to purchase 100 steam locomotives and 5,000 freight cars. The Baldwin contract is the first to be let under the program. Half the equiment is to be built by domestic bidders, the rest by low bidders among foreign firms (*Railway Age*, September 13, page 13).

Baldwin's unit bid of $178,200 was highest of 12 submitted on the locomotives. B-L-H was the only American bidder on these but three American firms were also the high bidders on the freight cars.

The General Services Administration announced that it is negotiating on the contracts for the balance of the locomotives and the freight cars. The Baldwin contract calls for delivery to the Port of New York by December 31, 1955, with five locomotives to be delivered in September and 15 in each succeeding month through December. Because domestic firms are taking part in the order, GSA reported, the total grant to India will amount to about $27.5 million.

FREIGHT CARS

The **Reading** will purchase before the end of the year an undetermined number of hopper and gondola cars, according to President Joseph A. Fisher.

The **Pennsylvania** has ordered 200 70-ton special flat cars for piggyback service from the Bethlehem Steel Company.

PASSENGER CARS

The **Canadian National** has ordered two rail diesel cars (one RDC-1 and one RDC-4), from the Budd Company. The cars will be operated as a single train between Quebec and Chicimouti, 227 miles, replacing the steam-hauled passenger train now operating a tri-weekly service between those points.

Organizations

The ninth annual meeting of the **American Society of Traffic and Transportation** will be held at the Mayflower Hotel, Washington, D. C., October 29. Dr. Arthur S. Flemming, director of the Office of Defense Mobilization and a member of President Eisenhower's Cabinet Committee on Transport Policy and Organization, will speak at the luncheon session. Principal speaker at the morning session will be Interstate Commerce Commissioner Howard G. Freas. An address by Richard L. Bowditch, chairman of the U.S. Chamber of Commerce and of C. H. Sprague & Son, will highlight the afternoon session.

The **Northwest Shippers Advisory Board** will hold its next meeting in the Gardner Hotel, Fargo, N.D., October 27-28.

Donald S. Sundel, manager of the New Haven's "Trailiner" service, will address a meeting of the **Railroad Enthusiasts, New York Division,** in the YMCA Auditorium, Pennsylvania Station, New York, at 8 p.m., October 22. His subject will be "Piggybacking on the New Haven."

The eighth training seminar on packing, loading and handling freight will be held at the research center of the AAR on the campus of Illinois Institute of Technology, Chicago, October 25-29. Sponsored by the **Freight Loss and Damage Prevention Section of the AAR,** the course will be held in the container and loading research and development laboratory. Covering all phases of carloading and packaging, the five-day program will be under the direction of C. A. Nafziger, director of the section. Enrollment is limited to about 25 carrier representatives.

People in the News

Gordon Huffines Named Railway Progress Editor

Gordon Huffines, managing editor of Railway Progress, monthly publication of the Federation for Railway Progress, has been appointed editor.

JOHN A. HALL, the new director of locomotive inspection, Interstate Commerce Commission (*Railway Age*, October 11, page 11). Mr. Hall, 55, had been special assistant to the grand chief engineer, Brotherhood of Locomotive Engineers. Born at Webb City, Mo., he started his railroad career as a hostler's helper in 1918 with the Northern Pacific. He was employed as a fireman with the Southern Pacific in 1922 and was promoted to engineer in 1941, working 32 years in all on that road.

Mr. Huffines, 27, an alumnus of the University of North Carolina, joined the staff of Railway Progress in March 1951 as assistant editor.

Supply Trade

ACF Revamps Plan Sent to Stockholders

A proposal for recapitalization of ACF Industries, Inc., has been mailed to stockholders, who will vote upon the plan at a meeting November 23.

The plan proposes that each share of 7% non-cumulative preferred stock of $100 par value be changed into two shares of 5% cumulative and convertible preferred stock of $50 par value plus $4 cash. The $50 par value preferred would be convertible into common at the ratio of 1⅛ shares of common for each preferred share, and would be redeemable at 110% of par value plus accrued dividends.

Cincinnati Milling Machine Observes 70th Anniversary

The Cincinnati Milling Machine Company, in observance of its 70th anniversary, has organized a series of tours through its Cincinnati plants for customers, technical societies and various industrial groups. One highlight of the tours is a visit to a reproduction of the company's original shop as it appeared in 1884. Various new tools, such as a tool room surface grinder and a new centerless grinder, are on display.

OBITUARY

Francis J. Dolan, assistant secretary of **Combustion Engineering, Inc.,** and general manager of the **Superheater Company division,** died October 2.

Securities

Dividends Declared

LAKE SUPERIOR & ISHPEMING.—35¢, quarterly payable October 15 to holders of record October 1.

NEW YORK, NEW HAVEN & HARTFORD.—$5 preferred, $1.50, accumulative, payable October 30 to holders of record October 18.

RICHMOND, FREDERICKSBURGH & POTOMAC.—7% guaranteed, 87½¢, semiannual; 6% guaranteed, 75¢, semiannual; both payable November 1 to holders of record October 30.

NEWPORT & RICHFORD.—To issue $450,000 of first mortgage, 4% bonds with a maturity date of July, 1979. The new bonds in the amount of $292,000 would be exchanged for a like amount of presently-outstanding first mortgage bonds due January 1, 1966; and the remaining $158,000 would be delivered to the Canadian Pacific in payment for advances. CPR owns all of the applicant's stock.

Security Price Averages

	Oct. 12	Prev. Week	Last Year
Average price of 20 representative railway stocks	70.10	70.88	57.85
Average price of 20 representative railway bonds	95.92	96.14	90.40

Railway Officers

NEW YORK CENTRAL.—Frederick B. Hank, general manager, New York district, has been appointed resident vice-president at Boston. The jurisdiction of **A. W. Laskoske,** general manager, Lines East and Boston & Albany district, at Syracuse, N.Y., has been extended to include the Electric, Harlem, Putnam and River divisions, New York Terminal district, and Marine department.

Kenneth L. Moriarty, vice-president in charge of the operating department of the **Denver & Rio Grande Western** at Denver, has been appointed chief engineer—system of the NYC at New York, a new position.

Frank K. Mitchell, assistant vice-president—equipment, has been named assistant vice-president—management services, with headquarters as before at New York, and his former position has been abolished. Mr. Mitchell succeeds **Vernon L. Nelson,** who retired September 30 after 44 years of service.

G. F. Jessup, superintendent, Syracuse-Rochester division at Syracuse, has been appointed assistant to general manager there. **L. H. Stecker,** superintendent, St. Lawrence-Adirondack-Ottawa division at Watertown, N.Y., has been transferred to the Mohawk-Hudson division at Albany, to replace **C B. Fleming,** who transfers to Syracuse, succeeding Mr. Jessup. **J. J. Danhof, Jr.,** of the general manager's staff at Syracuse, has been named assistant superintendent, Buffalo division at Buffalo, succeeding **I. A. Olp,** who has been promoted to superintendent at Watertown, succeeding Mr. Stecker. **J. F. O'Connell,** assistant superintendent of the Syracuse-Rochester division at Syracuse, has been appointed terminal superintendent of that division at Rochester, succeeding **Newman J. Evans,** who retired September 1 after 49 years service. **J. W. Hobb,** trainmaster at East Syracuse, succeeds Mr. O'Connell as assistant superintendent at Syracuse. **D. B. Fleming, Jr.,** has been named trainmaster of the Mohawk-Hudson division at Utica, N. Y., and **E. A. Crandall,** trainmaster of the Syracuse-Rochester division at Syracuse. **W. B. Rogers** has been appointed trainmaster, Mohawk-Hudson division, at Poughkeepsie, N.Y., succeeding **H. F. Carey,** who has been named trainmaster-general yardmaster at Utica. **L. J. Sheils** has been appointed supervisor of freight transportation, Lines East and Boston & Albany district, at Syracuse. **W. V. Hayes,** assistant trainmaster of the Boston & Albany at Beacon Park, Allerton, Mass., has been appointed trainmaster at Boston.

David J. Jones has been named district claim agent at Jersey Shore, Pa., succeeding **Raymond N. Haynes,** resigned.

Clifford W. Winklepleck has been appointed assistant general freight agent at Cincinnati, succeeding **Erwin R. Pister,** retired September 30.

Mr. Hank was born at Troy, N.Y., and, after graduation from Renssalaer Polytechnic Institute in 1915, entered NYC service as rodman. He subsequently served as assistant engineer, assistant designing engineer, assistant engineer and assistant to vice-president and general manager, before becoming general manager, New York district, in 1949.

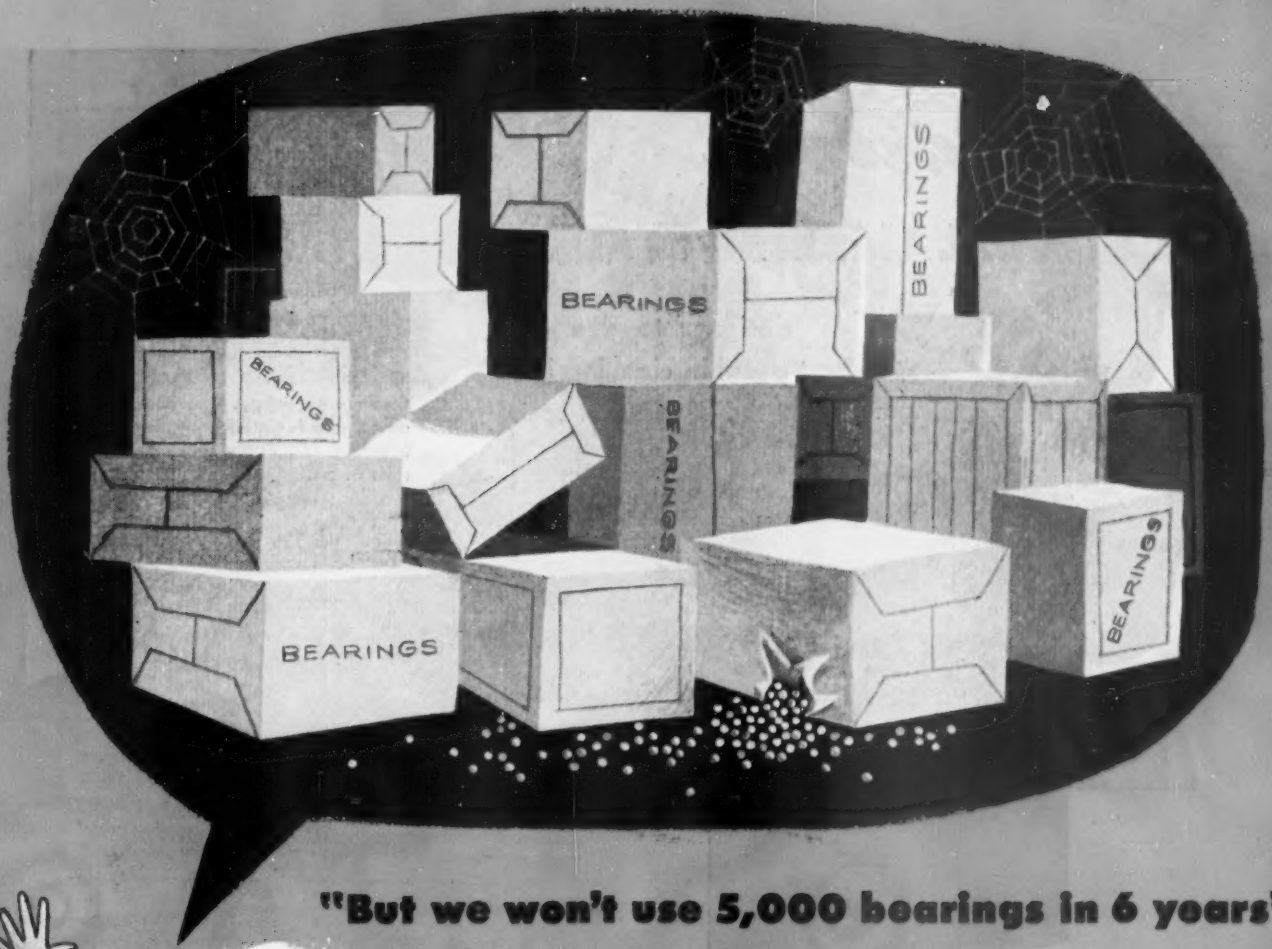
Frederick B. Hank

Mr. Moriarty, born at Joliet, Ill., entered railroad service in 1918 in the engineering department of the Chicago Great Western at Chicago. He joined the D&RGW in 1924 as division engineer at Gunnison, Colo., later serving as roadmaster, trainmaster, assistant superintendent, division superintendent, assistant chief engineer, chief engineer and general manager, before becoming vice-president in charge of the operating department earlier this year. A photograph of Mr. Moriarty was published in *Railway Age* May 24.

OBITUARY

Clarence E. Robinson, former electrical supervisor of the **Chicago North Shore & Milwaukee,** died September 30 at Zion, Ill.

Edward F. Wonder, western freight traffic manager of the **Lehigh Valley** at Chicago, died October 1 at Augustana hospital, Chicago.



"But we won't use 5,000 bearings in 6 years"

This railroad purchasing agent, shopping for the best parts at lowest cost, was just quoted a low unit price tied to a large-volume order. He's got the answer because he knows that it's no bargain to buy parts out of all relation to needs just to get a "break" on unit prices.

But when you buy General Motors Diesel Locomotive parts from Electro-Motive you pay the same low price regardless of the quantity. You avoid tying up capital in excess stocks and don't risk losing a good share of your investment through deterioration of parts in storage.

Retail deliveries at wholesale prices is just one of the reasons why it pays to buy genuine Electro-Motive parts. Here are others:

Full Warranty—100,000 miles or one year's service, whichever occurs first, from date of installation

"One Stop" Shopping—One requisition can cover more than 35,000 different parts

Regional Warehouses—Cuts lead time on orders; 24-hour delivery in emergencies

Continuing Improvements—Over a 15-year period an 800% increase in piston life, for example

For full details, call your Electro-Motive Parts Representative or write:

ELECTRO-MOTIVE DIVISION GENERAL MOTORS LOCOMOTIVES **GENERAL MOTORS**

La Grange, Illinois • Home of the Diesel Locomotive

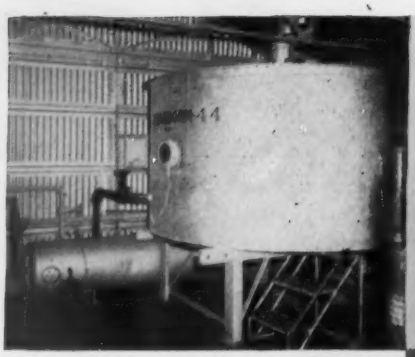
EM Parts with a pedigree

Dearborn

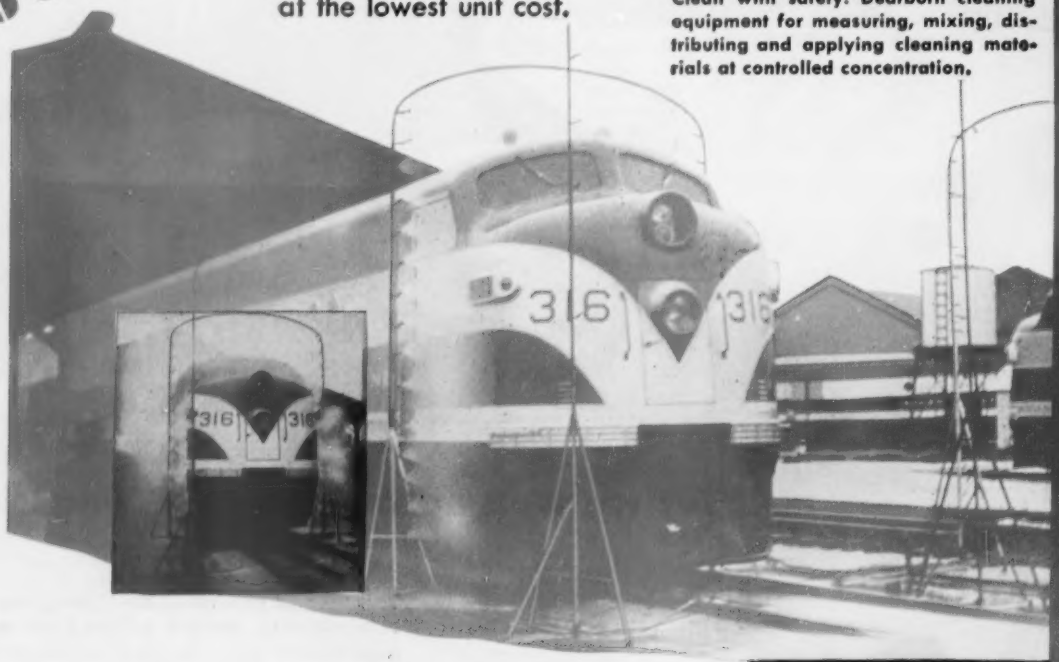
DUAL CLEANING SYSTEMS

JOB ENGINEERED

designed to give you
the best possible cleaning job
at the lowest unit cost.



Clean with safety. Dearborn cleaning equipment for measuring, mixing, distributing and applying cleaning materials at controlled concentration.



Is your cleaning plant producing efficient results? If not, a Dearborn "job-designed" system can be the answer.

YOUR WATER SUPPLY—does the rinse water leave a noticeable residue after evaporation? Dearborn laboratories can help offset this with corrective water conditioning and a specific cleaner.

LOCAL CONDITIONS—such as track layout, existing equipment and available labor are other factors that determine the economy of your cleaning plant performance. Here, too, Dearborn "job-designed" systems—prefabricated buildings, chemical mixing vats and special pressure pumps—assure better cleaning performance at low cost.

Write for your copy of Bulletin 6000.

DEARBORN CLEANER 92 leads the field as a safe, efficient cleaner for all electrical equipment, whether bench work, control cabinets, motors or generators. High flash point—rapid drying time—low order toxicity are a few of its advantages.

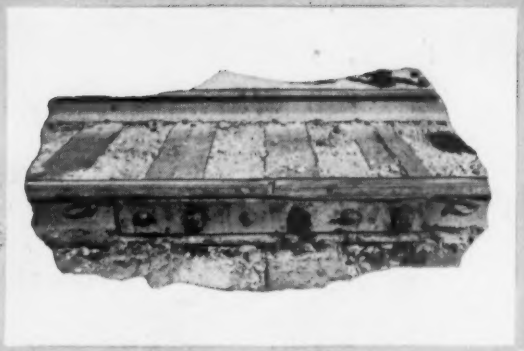
Dearborn

TRADE MARK

COMBATTING CORROSION
EVERYWHERE SINCE 1887

DEARBORN CHEMICAL COMPANY · Merchandise Mart Plaza, Chicago 54, Illinois

WHEN THIS HAPPENS, *it costs you money*

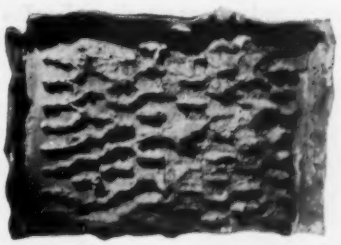


RAIL JOINTS

Preventive maintenance costs less than rail and joint replacement—less in labor and materials. The remedy is simple—one-coat NO-OX-ID does the job. Remove rust scale, then coat with NO-OX-ID to cut maintenance costs on railroads. Write for Bulletin 3077.

BRIDGES

Replacing rust-ruined steel bridge members is expensive. NO-OX-ID Rust Preventives stop corrosion—conserve materials and man-hours. Wherever steel is used—on railroad bridges, water tanks, structures, tracks, signals, pipeline—NO-OX-ID prevents rust and corrosion. Send for informative NO-OX-ID literature.



End view of Diesel radiator section showing tubes completely plugged.

DIESEL COOLING WATER

Untreated cooling water did this. Diesel manufacturers now recommend the proper treatment of the Diesel cooling water to protect valuable equipment. Dearborn can help you by (1) analyzing your raw water characteristics (2) supplying a De-Ionizing or Zeolite system of the right capacity (3) recommending the required finishing treatment. Send for descriptive literature.

***Dearborn's* working on the railroad . . .**

to reduce maintenance cost from shop to terminal. Many leading railroads everywhere rely on Dearborn NO-OX-ID rust preventives; Dearborn's railroad cleaners; Diesel cooling water treatments; Dearborn's De-Ionizing and Zeolite systems.

consult your ***Dearborn*** *field representative—*

His broad railroad experience plus Dearborn's extensive laboratory and research facilities are at your service . . . without obligation.

Streamlite HAIRINSUL
lasts the life of the car

LOW CONDUCTIVITY . . . Thoroughly washed and sterilized, all-hair heat barrier. Rated conductivity —.25 btu per square foot, per hour, per degree F., per inch thick.

LIGHT WEIGHT . . . Advanced processing methods reduce weight of STREAMLITE HAIRINSUL by 40%.

PERMANENT . . . Does not disintegrate when wet, resists absorption. Will not shake down, is fire-resistant and odorless.

EASY TO INSTALL . . . Blankets may be applied to car wall in one piece, from sill to plate and from one side door to the other. Self-supporting in wall sections between fasteners.

COMPLETE RANGE . . . STREAMLITE HAIRINSUL is available ½" to 4" thick, up to 127" wide. Stitched on 5" or 10" centers between two layers of reinforced asphalt laminated paper. Other weights and facings available.

HIGH SALVAGE VALUE . . . The all-hair content does not deteriorate with age; therefore has high salvage value. No other type of insulation offers a comparable saving.

. . . and adds LIFE to your perishable cargo

When you call for STREAMLITE HAIRINSUL to be installed in new refrigerator cars you are making a wise, one-time investment because . . . it lasts the life of the car!

Yes . . . and you are actually adding life to valuable shipments of perishables through their safeguarded protection against sudden and extreme temperature changes with STREAMLITE HAIRINSUL . . . the dependable all-hair insulation that weighs 40% less . . . and does so much more!

More Reasons why refrigerator car builders prefer STREAMLITE HAIRINSUL are listed at left. There are many more! Write for complete data.

Write to:
Merchandise Mart
Chicago 54

Streamlite AMERICAN HAIR & FELT CO. HAIRINSUL

SETS THE STANDARD BY WHICH ALL OTHER REFRIGERATOR CAR INSULATIONS ARE JUDGED

EASIEST to install ...
EASIEST to maintain!
HYATT freight car boxes

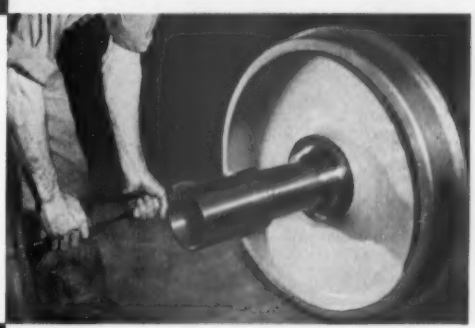
Hyatt journal boxes are ready to install just as they come from the factory!

You invest in roller bearings to eliminate the hot box problem. *But over the long haul, Hyatt's ease of installation and maintenance is equally important!*

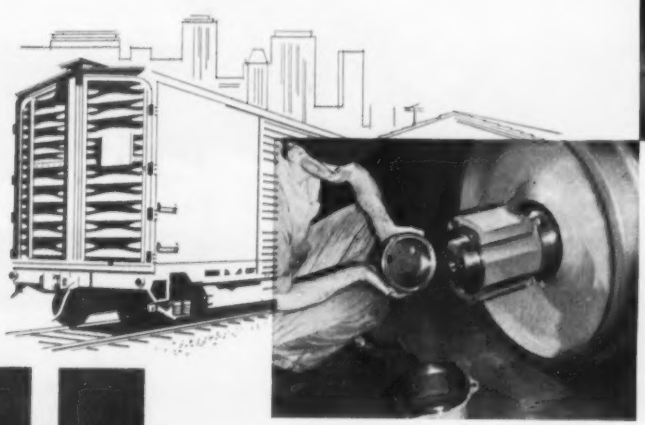
Installation of Hyatt boxes is a one-man job, and takes only a few minutes. No special tools are required and *bearing adjustments are not necessary!* The box is simply slipped onto the axle (over the one-piece inner race), locked into position, and lubricated. That's all.

Disassembly, naturally, is equally simple. *Press fits are not disturbed,* either when removing a box or a wheel, and because spare axles and wheels need to be fitted with inner races only, *spare parts inventory is substantially reduced.*

Hyatt Journal Boxes are ready to install just as they come from the factory. Simply remove shipping cover and slip box onto inner race. There are no pre-assembly adjustments!



One-piece inner race is heated uniformly to 300°-325° F, slipped on the journal, and shrunk into position. No spacers or mounting fixtures are required.



After box is applied to axle, front cover is removed and locking cup is bolted to axle-end. Using a grease gun, lubricant is added through fitting and the box is ready to roll!

HYATT

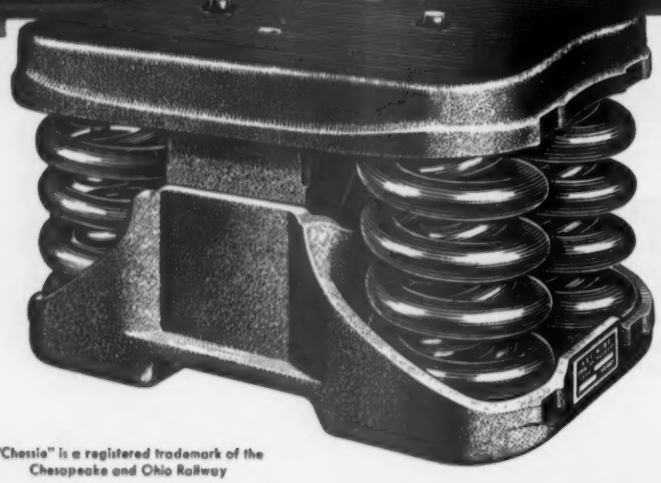
STRAIGHT BARREL TAPER

ROLLER BEARING JOURNAL BOXES

HYATT BEARINGS DIVISION • GENERAL MOTORS CORPORATION • HARRISON, NEW JERSEY

On the Chesapeake and Ohio, 6000 older cars are being equipped with ASF Ride-Control® Packages . . . so that

Now even "Chessie"®



"Chessie" is a registered trademark of the Chesapeake and Ohio Railway

The C&O is on record as being ". . . vitally interested in any plan that will move more goods, more efficiently." They found one answer in the self-contained, easy-to-install Ride-Control Package. In minutes, the Package-equipped car is ready to roll—almost as smoothly as a brand-new car on Ride-Control Trucks!

TEST RUNS—BEFORE AND AFTER PACKAGE INSTALLATION—SPEAK FOR THEMSELVES!

LADING DAMAGE INDEX: 45,877
Car mounted on old-type coil springs. Speed: 36 mph.
LADING DAMAGE INDEX: 3,085
Same car equipped with Ride-Control Packages. Speed: 84 mph.

can ride their freights!

"Chessie" has long been a symbol of smooth, safe travel on crack C&O passenger fleets. Today, more than ever before, the same applies to their freight service.

Current modernization on the C&O calls for bringing some 6000 older cars up to modern riding standards with ASF Ride-Control Packages. Result: *cars that ride over fifteen times more smoothly!*

But aside from the obvious mechanical advantages is the equally important question of *economics.*

In deciding to use Packages extensively, the C&O considered the fact that a car available only for restricted use represents a potential revenue loss . . . that a more efficient car pool is the answer to carrying more freight per dollar invested in rolling stock . . . that safer hauls at higher speeds build traffic.

Not *all* older cars are equipped with Packages, of course. Some are so close to retirement that they don't justify even this small an investment. So each older car is evaluated as to its over-all condition. In short, the C&O Package program is sound economics in *practice* as well as in theory.

Would a similar program be practical on your road? *The facts prove that it's worth investigating.* Now is the time to find out why a small per-car investment in Ride-Control Packages can pay you big returns!

Bring your older cars up to modern riding standards . . . with

ASF Ride-Control® Packages

AMERICAN STEEL FOUNDRIES

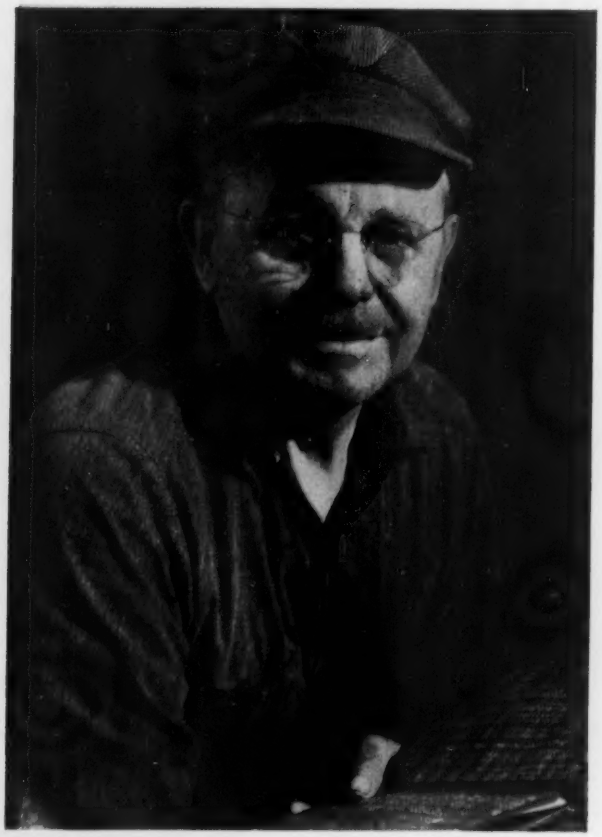
410 N. Michigan Avenue, Chicago 11, Illinois

Canadian Sales: International Equipment Co., Ltd., Montreal 1, Quebec

UNITED STATES STEEL

"We custom-fit every crossing before it leaves the shop"

SAYS *Ed Brown*, U.S. STEEL CROSSING FITTER



EVERY crossing manufactured at U. S. Steel's Johnstown Works has to be preassembled at the shop for exact adherence to specifications before it is shipped to the customer. Crossing fitting is a critical step in the manufacture of Trackwork. All parts must fit precisely as dictated by the complex blueprints, with virtually no tolerance permitted. A great deal of machining and grinding on rails and frogs is required to accomplish such "tailored" fitting.

When a crossing is completely assembled, every part is marked to indicate its position in the layout. The crossing is then dismantled and shipped. With the aid of the markings, it can be reassembled rapidly and correctly at its destination.

There is no margin for error in crossing fitting—and no one is more aware of this than Ed Brown. Here, precision is the key word. Fast, heavy freight and high-speed passenger trains depend for their safe and uninterrupted operation on these crossings being perfectly formed, perfectly fitted. That's why Ed Brown *has* to be a specialist. Fifteen years of crossing fitting has made him one. And the years he spent previous to that as a grinder, planer, drill press operator, and trackwork press operator gave him the ideal background for his present job. In all—37 years in Trackwork with U. S. Steel. A true specialist.

But what does it all add up to—this precise man with his vast knowledge of so many phases of Trackwork? Just this—*years of experience, plus painstaking manufacture, make USS Trackwork the finest you can buy.* For further information, write to United States Steel Corporation, 525 William Penn Place, Room 4534, Pittsburgh 30, Pennsylvania.

● This four-crossing, 16-intersection layout is typical of the crossings which are shop-assembled constantly by Ed Brown and his crew. This particular one, consisting of 1585 separate parts, will become a Crab Creek Crossing for the B&O Railroad, East and West Bound Mains over the Pennsylvania Railroad at Youngstown, Ohio.

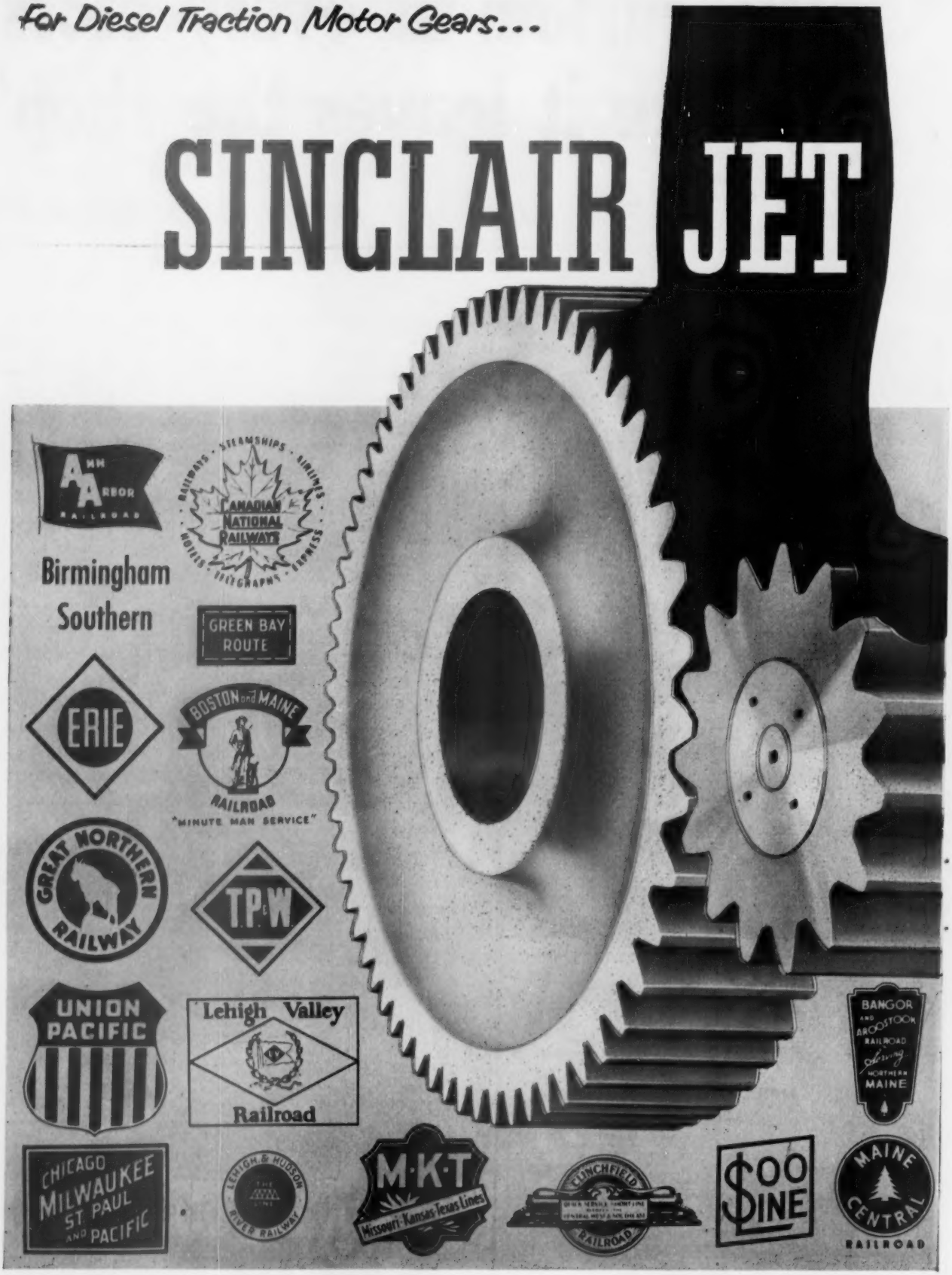
USS

TRACKWORK

UNITED STATES STEEL CORPORATION, PITTSBURGH · TENNESSEE COAL & IRON DIVISION, FAIRFIELD, ALA.
COLUMBIA-GENEVA STEEL DIVISION, SAN FRANCISCO · UNITED STATES STEEL EXPORT COMPANY, NEW YORK

For Diesel Traction Motor Gears...

SINCLAIR JET



LUBRICANT-TM

Since its introduction in 1952, Sinclair JET Lubricant—TM has reached that acme of acceptance where it is now being used by many of the nation's most prominent railroads. The emblems shown represent only part of the total number of railroads using this All-Year Lubricant. Actually, *more than 70 railroads are using* JET Lubricant—TM. Isn't it time you, too, investigated the advantages of this top quality railroad lubricant?

Contact Sinclair Refining Company,
Railway Sales
New York, Chicago, St. Louis, Houston

SINCLAIR RAILROAD LUBRICANTS

BROWNHOIST

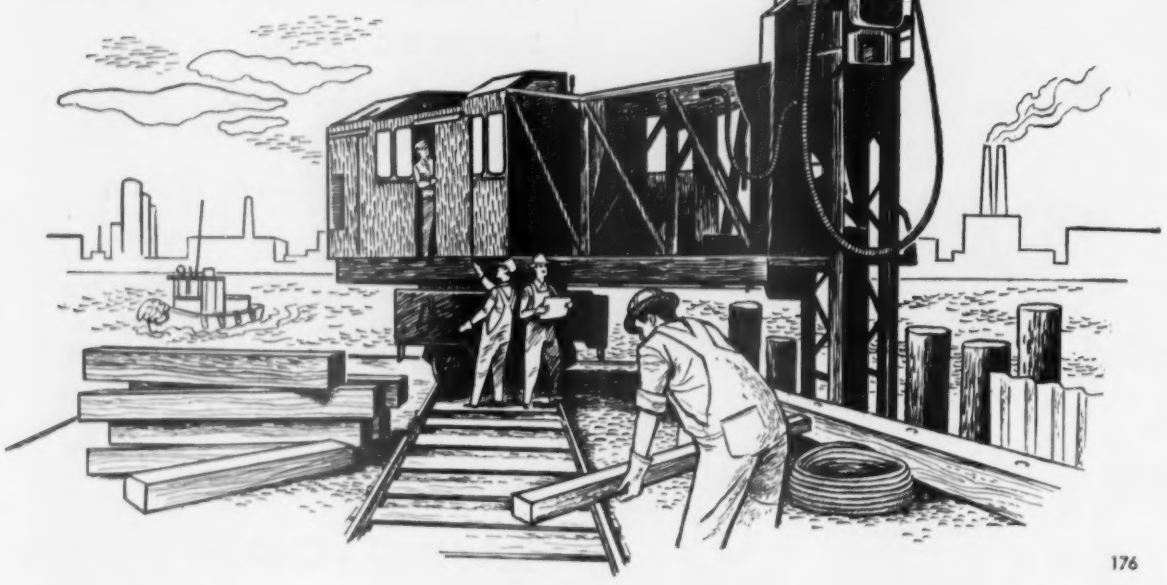
BUILDS BETTER HEAVY-DUTY MATERIALS HANDLING EQUIPMENT

ANNOUNCING AMERICA'S FIRST DIESEL ELECTRIC PILE DRIVER

The Industrial Brownhoist heavy-duty Diesel electric full revolving pile driver illustrated here is the first ever built. Maximum leader load is 26,000 lbs. Reach is 34' 1" from center of rotation and 20' 6" ahead of the front axle. Power battering leaders 50 feet long have a batter of 3 inches per foot. The leaders can be raised to driving position or lowered to traveling position in just one minute. Top travel speed is 20 m.p.h. with a maximum drawbar pull of 21,000 lbs. It can haul its own work train and is equipped with air brakes for braking the driver as well as the cars it is hauling.

Brownhoist also builds Diesel Electric Locomotive-Cranes in capacities from 25 tons up, Railroad Wrecking Cranes in capacities to 250 tons, boat unloaders, traveling bridge cranes, fast plants and other special equipment for handling bulk materials fast and efficiently in mines, railroads, docks and large manufacturing plants. For complete information about Brownhoist equipment to speed up your heavy materials handling, consult your nearest Brownhoist representative or write us today.

ANOTHER ADDITION TO THE FAMOUS BROWNHOIST FAMILY OF HEAVY-DUTY, TIME-SAVING EQUIPMENT



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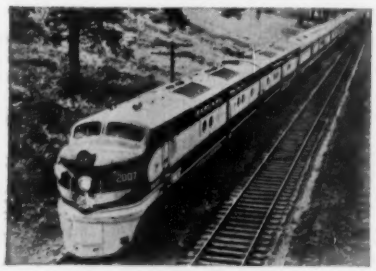
INDUSTRIAL BROWNHOIST CORPORATION • BAY CITY, MICHIGAN • DISTRICT OFFICES: New York, Philadelphia, Cleveland, Chicago, San Francisco, Montreal • AGENCIES: Detroit, Birmingham, Houston

"Sperry Rail Service plays a very important part in our operation," reports Mr. R. J. Gammie, Chief Engineer, The Texas and Pacific Railway Company. "It provides the best insurance against injuries to passengers and employees and against damage to or destruction of freight. Each defective rail is a potential accident, its detection and removal eliminates that hazard."



Keeping schedules like that of the Texas Eagle calls for fine timing. Mr. Gammie continues, "Our decision to assign a train master to all detector car operations proved economically sound. His cooperation with the railroad representative guarantees optimum testing performance; at the same time maintains proper operation of trains."

THE TEXAS AND PACIFIC RAILWAY

insures against costly rail failure with SPERRY RAIL SERVICE

"We started using Sperry Service in 1933 and have continued to use their testing equipment each year since that time." Mr. Gammie adds, "The results have been gratifying; 90% of the defects detected from the beginning of our 1954 program to date are small defects." Sperry Detector Car 134 is shown testing T & P track. Up-to-date equipment like this assures highly efficient performance.

Programmed rail testing on the T & P is explained by Mr. Gammie as follows: "Sperry Detector Cars test parts of our territory once, parts twice and parts as much as four times a year. Testing frequency depends on the age of the rail, traffic density and rate of defect occurrence. Our testing schedule is worked out annually in cooperation with the other roads in our area. Such group testing is advantageous to all roads concerned. It permits scheduling testing equipment with a minimum of delay in transfers between roads and helps maintain proper test intervals."

Sperry

FIRST IN RAIL TESTING

SPERRY RAIL SERVICE

Division of Sperry Products, Inc.
Danbury, Conn.
New York Chicago St. Louis

Continuous research and development, an important part of Sperry Service, contributes this exclusive advantage; positive assurance that Sperry detection methods and equipment are always the most advanced in existence. Whatever your testing problem, rail-in-track, diesel axles, wheels or other vital components, it's more than likely Sperry has a solution. Write or phone for complete information.

"Let's Look at the Record!"

When all the conversation is done—it's the record that counts!

...the record:

Fairbanks-Morse 2400 horsepower Opposed-Piston Engines in Fairbanks-Morse Locomotives have set a record of less than one cent per mile for cost of repair parts.

And the Fairbanks-Morse opposed-piston engine requires the lowest parts inventory per horsepower in service.

...it adds up:

On the record it all adds up to a sound reason why the Fairbanks-Morse Train Master is your soundest motive power investment. Fairbanks, Morse & Co., 600 South Michigan Ave., Chicago 5, Ill.

FAIRBANKS-MORSE

a name worth remembering when you want the best

DIESEL LOCOMOTIVES AND ENGINES • RAIL CARS AND RAILROAD EQUIPMENT • ELECTRICAL MACHINERY • PUMPS • SCALES • WATER SERVICE EQUIPMENT • HAMMER MILLS • MAGNETOS

ARIZONA

Phoenix, Charlie C. Jones Battery & Elec. Co., 300-322 West Jefferson St.

CALIFORNIA

Los Angeles 21, Magneto Sales & Service Co., 751 Towne Avenue
Sacramento, Langner & Rifkin, 1116 15th St.
San Diego 1, Elec. & Diesel Service Co., 1254 Kettner Blvd.
San Francisco 3, Furrer & Uster, Inc., 225—7th St.
San Francisco 3, H. G. Makelim Magneto Repair Co., 1583 Howard Street
Wilmington, Diesel Control Corporation, 218 North Marine Ave.

COLORADO

Denver 3, Central Supply Co., 1171 Lincoln Street

FLORIDA

Jacksonville 1, Spencer Electric Co., Inc., 40 West Beaver Street
Miami 36, Florida Diesel Service Co., 1930 North Miami Ave.

GEORGIA

Atlanta 3, Auto Electric & Magneto Co., 477 Spring Street, N. W.

ILLINOIS

Chicago 16, Illinois Auto Electric Co., 2011—37 Indiana Ave.
Rock Island, Lohse Automotive Service, Inc., 430 North Capitol Ave.

INDIANA

Indianapolis, Gulling Auto Electric, Inc., 450 North Capital Ave.

IOWA

Cedar Rapids, Edwards Carburetor & Electric Co., 209 Seventh St., S.E.
Des Moines 9, Electrical Service & Sales Co., 1313 Walnut Street

KENTUCKY

Louisville, Ellingsworth Auto Electric Co., 1003 East Broadway

LOUISIANA

New Orleans 13, John M. Walton, Inc., 1050 Carondelet Street
Bossier City, Vaughan Tractor & Auto Parts Co., 605 West Street
Mail Address: P.O. Box 661, Shreveport, La.

MARYLAND

Baltimore 1, Parks & Hull Automotive Corp., 1033 Cathedral Street

MASSACHUSETTS

Newton Upper Falls, W. J. Connell Co., 210 Needham St., Newton Industrial Center

MICHIGAN

Detroit 2, Knorr-Maynard, Inc., 5743 Woodward Ave.

MINNESOTA

Minneapolis 6, Diesel Service Co., 2509 East Lake Street
Minneapolis 2, Reinhard Bros. Co., Inc., 11 South 9th Street

MISSOURI

Kansas City 8, Electrical & Magneto Service, Inc., 2538 Grand Avenue
St. Louis 23, Diesel Fuel Injection Service Co., 9331 South Broadway

NEBRASKA

Omaha 2, Carl A. Anderson, Inc., 16th and Jones St.

NEW JERSEY

Newark 2, Tire Trading Co., 239 Halsey Street

NEW YORK

Brooklyn 32, A&D Diesel Service, Inc., 145—21st St.
Brooklyn 16, E. A. Wildermuth, Inc., 1102 Atlantic Avenue
Buffalo 8, Hettrich Electric Service, 1032 Ellicott St.
Syracuse 4, F. A. Crossman, Inc., 943 Genesee St.
Troy, Ehrlich Electric Service, Inc., 200 Fourth St.

NORTH CAROLINA

Raleigh, Diesel Injection Service, 3015 Hillsboro Road

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Corpus Christi, Womack Bros., 1302 Caldwell
Dallas, Beard & Stone Electric Co., 3909 Live Oak Street
El Paso, Reynolds Battery & Magneto Co., 801 Myrtle Ave.
Houston 1, Beard & Stone Electric Co., Milam at Polk Street
Houston 11, Magneto & Diesel Injector Service, 6931 Navigation Blvd.
Odessa, Electric Service & Supply, 1601 North Grant Street
San Antonio, Womack Bros., 123 West Carolina

UTAH

Salt Lake City 2, Diesel Electric Service & Supply Co., 58 East 7th, South

VIRGINIA

Norfolk, Diesel Injection Sales & Service, 808 Union Street
Richmond 20, Charles H. Woodward Electric Co., 709 Broad Street
Salem, Diesel Injection Sales & Service, 814—8th Street

WASHINGTON

Seattle 1, Seattle Injector Co., 2706 Second Ave.
Seattle 14, Sunset Electric Co., 300 Westlake, North
Spokane 8, Sunset Electric Co., North 703 Division Street

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Philadelphia 32, J. W. Parkin, Jr., 2251 North Broad Street
Pittsburgh 13, Automotive Ignition Co., 6358 Penn Avenue

TENNESSEE

Memphis 4, Automotive Electric Service Co., 982 Linden Ave.

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Milwaukee 2, Wisconsin Magneto Co., 918 North Broadway

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BRITISH COLUMBIA

Vancouver, Magneto Sales & Service, Ltd., 126 Gore Avenue

NEWFOUNDLAND

St. John's, A. H. Murray & Co., Ltd.

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Anchorage, Reeve Alaska Airmotive, Merrill Field, P.O. Box 1160

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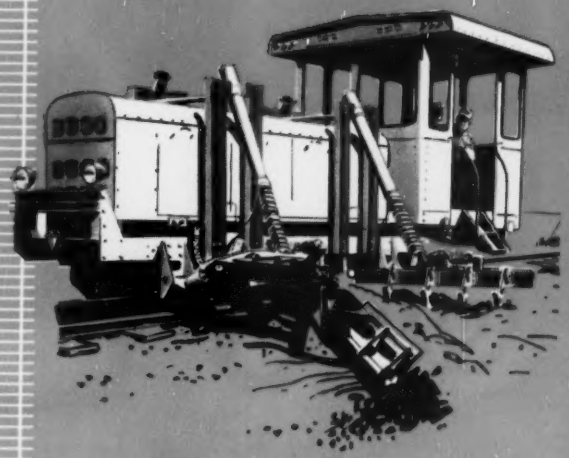
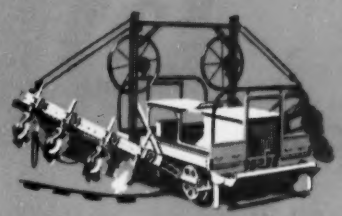
Western Offices: 582 Market Street, San Francisco 4, California • Export Sales: Bendix International Division, 205 East 42nd Street, New York 17, N.Y.

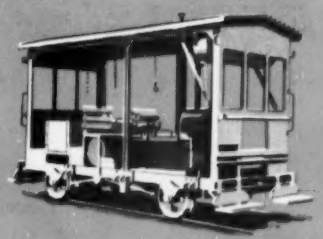
IS YOUR PROBLEM Ballast Maintenance?



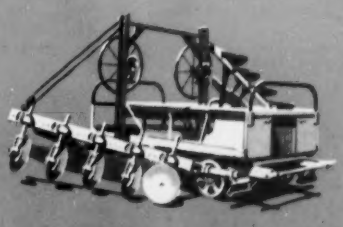
W77 SERIES A Ballast Maintenance Car features a 112-h.p. engine with eight speeds and two-way, four-wheel drive. By mounting scarifiers, discs, center plow, ballast equalizing box and two sizes of blades, it handles the entire ballast maintenance job.



M25 SERIES D Ballast Discer, an unusually economical unit in both cost and maintenance, does a good job of maintaining shoulder ballast. Features include a heavy-duty, truck-type transmission and four-speed, two-way operation. Discing equipment can be detached, thus freeing the unit for gang service.



M25 SERIES E Ballast Drainage Power Unit is ideal for discing, blading and scarifying. It is powered by a rugged 75-h.p., 6-cylinder engine and offers four-speed, two-way operation. It is unusually thorough, economical and dependable in its operation.



W62 SERIES A Ballast Discer is a self-propelled unit that provides an efficient, economical method of improving track drainage, re-shaping shoulders and aiding in re-ballasting and tie renewal programs. Features include five 18" discs, full depth operation.

You'll find the answer at

Fairmont

As the industry-source for railway maintenance equipment, Fairmont has recognized its obligation to provide the perfect product for every maintenance assignment, regardless of scope or size. This, of course, is true in every phase of railway maintenance — but it is particularly evident, we think, in the field of ballast maintenance. The illustrations on this page alone bear eloquent testimony to this fact. For here you see Fairmont products ranging from the giant, all-encompassing W77 Series A to the compact M25 Series D Discer—representing a complete range of ballast maintenance equipment. Different as they are in their purpose and in their operation, you can be certain of lasting performance, of continuing dependability and of enduring value, regardless of the unit you select. If Ballast Maintenance is your problem, we invite you to contact us for detailed information. We've got the answer—and we are at your service at any time!

FAIRMONT RAILWAY MOTORS, INC.

FAIRMONT, MINNESOTA

MANUFACTURERS OF INSPECTION, SECTION AND GANG CARS, HY-RAIL CARS, MOTOR CAR ENGINES, PUSH CARS AND TRAILERS, WHEELS, AXLES AND BEARINGS, BALLAST MAINTENANCE CARS, DERRICK CARS, OIL SPRAY CARS, GROUTING OUTFITS, TIE RENEWAL EQUIPMENT, RAIL RENEWAL EQUIPMENT, WEED CONTROL EQUIPMENT

fine, new water-mixed material cleans diesel engine rooms and diesel exteriors quickly, safely

OAKITE COMPOSITION No. 72 will definitely give you faster, better, safer cleaning results. What's more with this ONE cleaner you can clean diesel engine rooms and diesel exteriors. You can't help but save money with this double-purpose cleaner Oakite Composition No. 72.

Hear what satisfied users are saying about Oakite Composition No. 72:

"This material is the one we've been looking for... that can be used with water instead of fuel oil or kerosene" (Interior diesel cleaning)

"Results perfect... diesels look almost like new" (Exterior diesel cleaning)

"Have never seen the equal of this material for removing oil and grease" (Interior diesel cleaning)

FREE SERVICE REPORT GIVES DETAILS. If you are looking for a quicker, safer way to clean your diesel interiors and exteriors. If you want to save money . . . take this first big step . . . send for FREE Service Report B-2837. It gives you a complete description of Oakite Composition No. 72. Tells you how to apply it manually for interior cleaning and mechanically for exterior washing. Just drop a line to address below for your copy. No obligation.

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CABOOSE CAR TRUCKS

BARBER-BETTENDORF

Swing Motion

CABOOSE CAR TRUCKS

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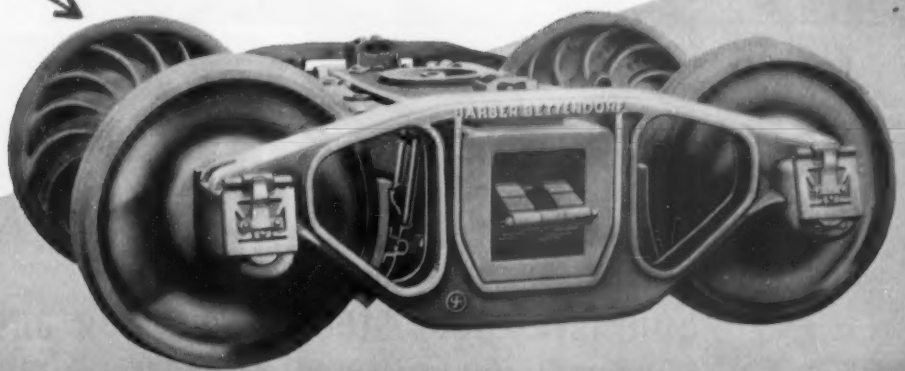
ANOTHER OF THE
FINE TRUCKS CAST BY

SCULLIN



STEEL CASTINGS MANUFACTURER

NEW YORK
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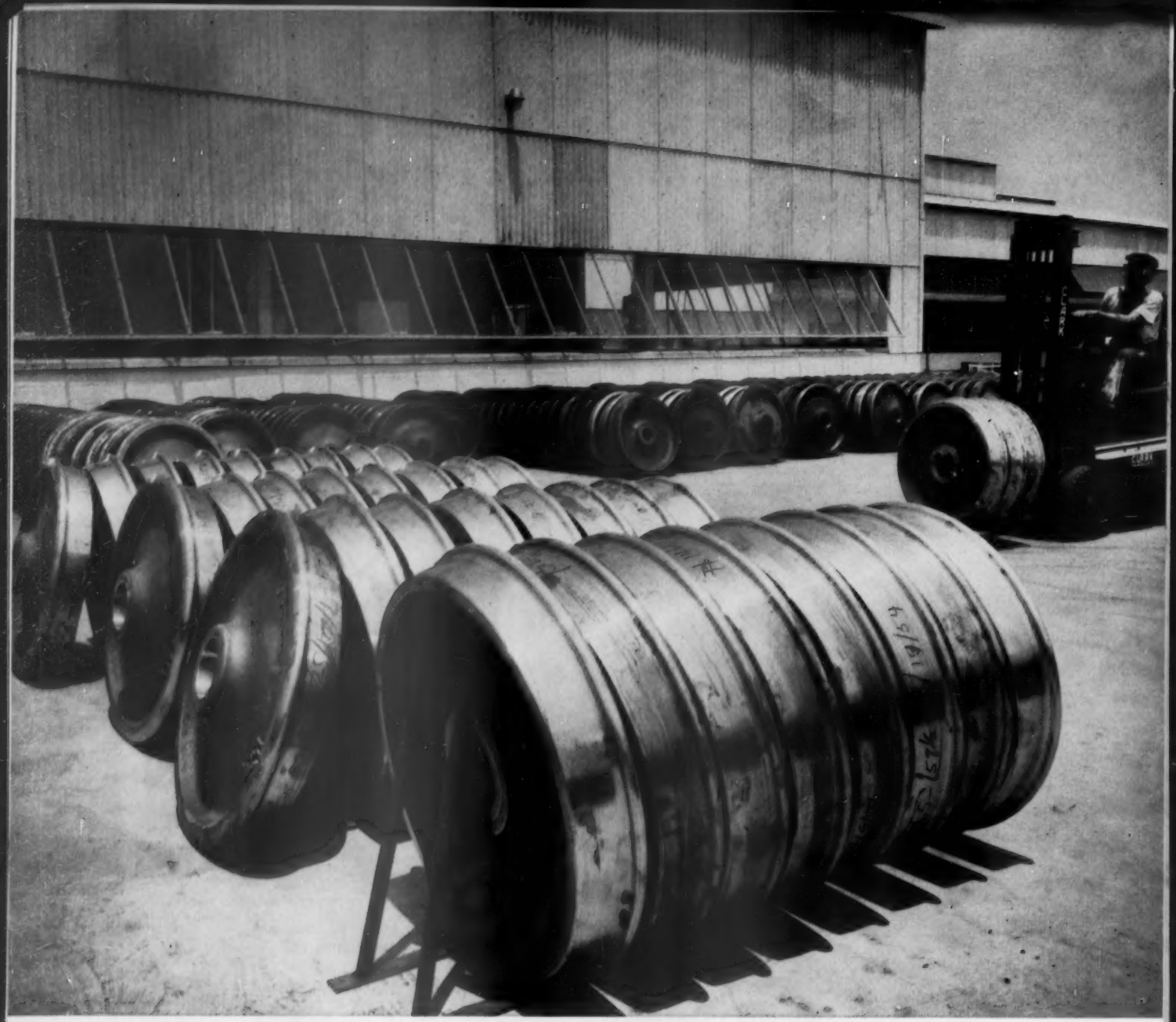


READY FOR SHIPMENT to car shops and railroads: one-wear cast steel wheels made in the new Southern Wheel plant at Calera, Ala.

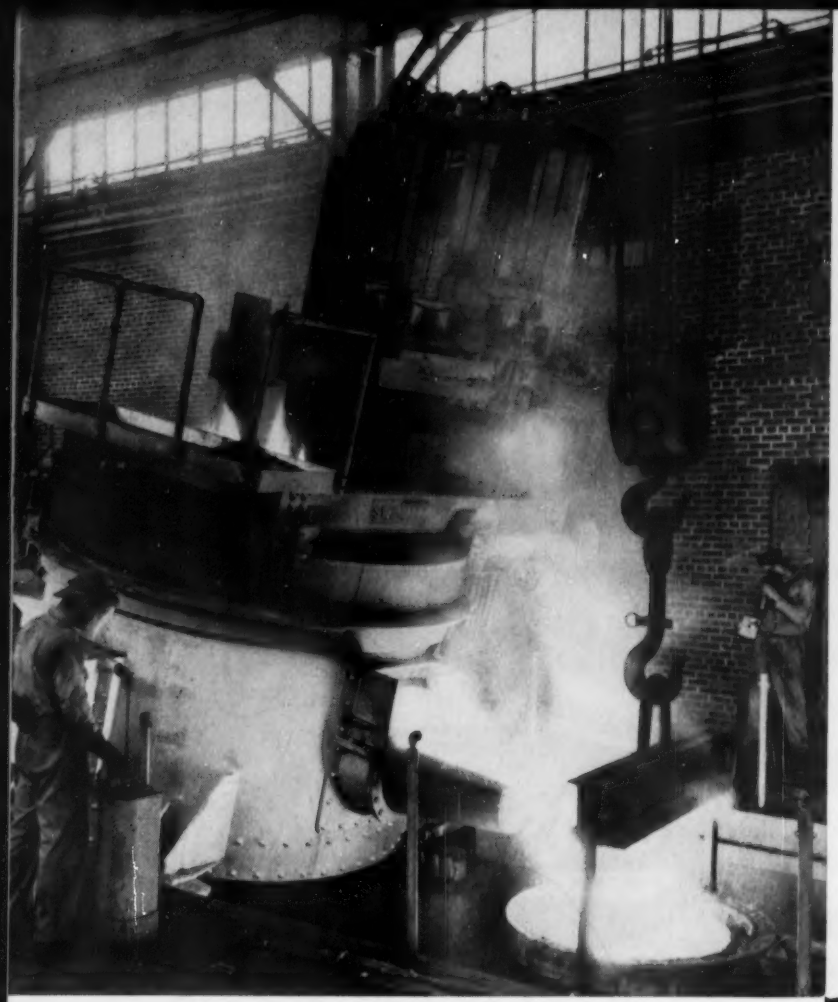
HERE THEY COME!

"Southern" cast steel wheels roll out of Brake Shoe's new plant in Alabama

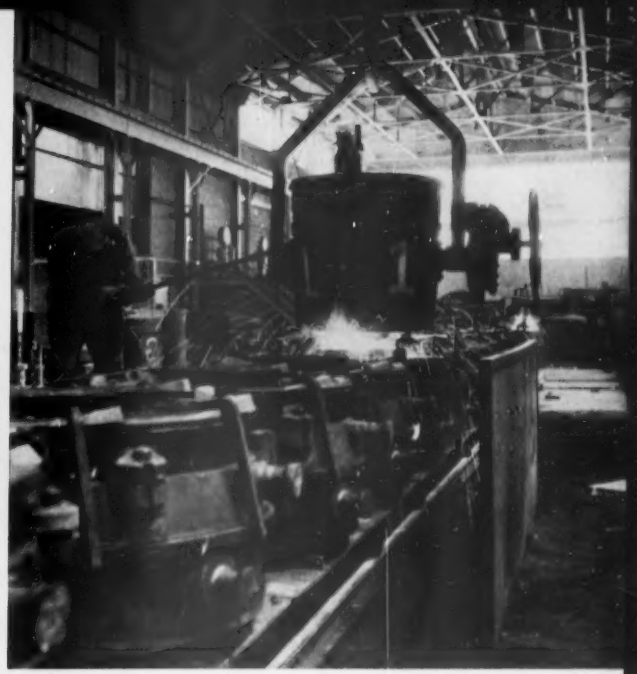
Announced last year by the American Brake Shoe Company after seven years of thorough road test, the new A.A.R. X-2 cast steel wheel is now in production at the Southern Wheel Division's modern new plant in Calera, Alabama, in the Birmingham industrial area.

This 1.5% carbon wheel has rolled up impressive endurance records in *millions* of test car miles under severest operating conditions. For highest quality, it is now being manufactured with the most up-to-date equipment in the efficient new plant shown in these pictures.

Production of the "Southern" cast steel wheel is accelerating steadily, and installation of additional equipment duplicating some of the units shown will soon bring output up to full rated capacity. For details of prices and delivery schedules, consult your Southern Wheel representative. Southern Wheel Division, American Brake Shoe Company, 230 Park Avenue, New York 17, New York (Member of AMCCW).



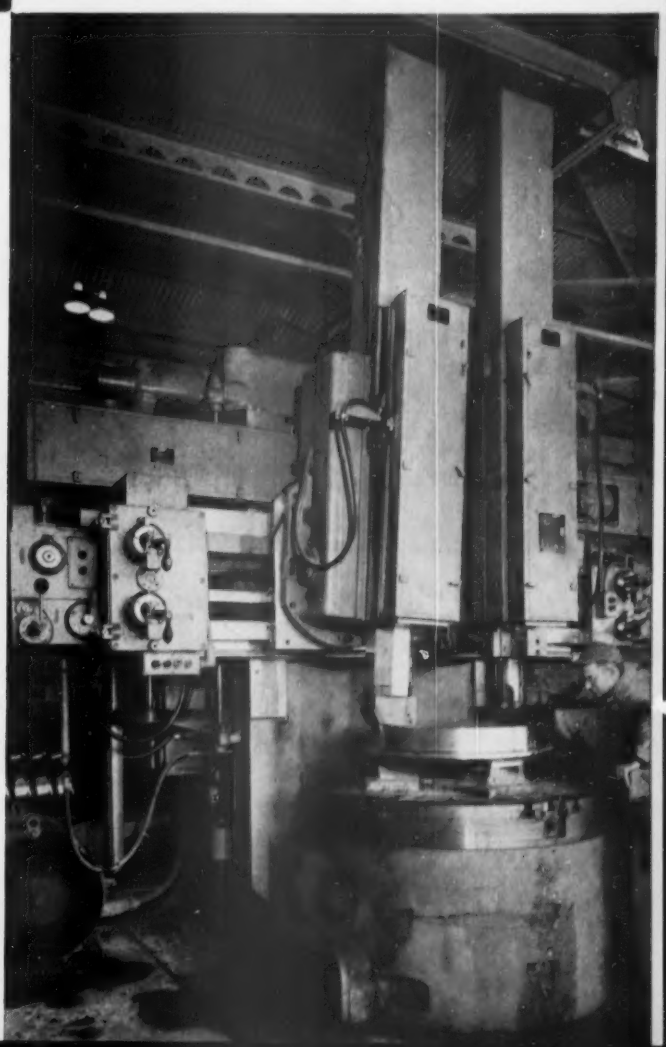
ELECTRIC FURNACE STEEL goes into the A.A.R. X-2 wheel—melted and poured under close temperature control.



WHEELS ARE POURED into sand molds with time-proven casting methods. Flasks travel from mechanized molding room across pouring floor to automatic shakeout on a continuous conveyor. Precision electronic equipment controls subsequent double heat treatment.

SPECIAL VERTICAL TURRET LATHE automatically machines hub and tread of each wheel. Single chucking for all turning, boring and facing operations assures concentricity.

"SOUTHERN" A.A.R. X-2 WHEEL combines 1.5% carbon steel with precision machining for better performance under toughest freight car service.

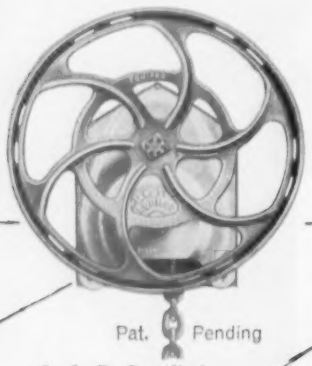


Look Ma--No Hands!

This may be alright as a kid stunt . . . but the operation of a hand brake is a serious matter. The trainman needs both hands . . . one for operating the brake and the other for holding onto the car for his own safety.

The EQUIPCO A.A.R. Certified Non-Spin Wheel Hand Brake never requires more than one hand to operate it . . . always leaving the other hand free for a safe hold on the grab-iron or handhold.

There are no levers or gadgets to confuse you on the EQUIPCO Hand Brake . . . nothing to operate but the brake wheel.



Pat. Pending

A. A. R. Certified

Equipco

NON-SPIN WHEEL TYPE HAND BRAKE

NEVER LET GO THE GRAB-IRON

√ Quick-acting
√ Eliminates "car impacts"
√ Can't jam
√ The "no creep" brake
√ One-hand operation

Write for free copy of 12-page booklet "Hand Brake Safety"

EQUIPCO HAND BRAKE DIVISION
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LOOK OUT FIRE!

TWO OF THE GREATEST NAMES IN FIRE PROTECTION HAVE JOINED FORCES

PYRENE and C-O-TWO, world-renowned manufacturers of approved fire protection equipment, are now unified under the same management to give you the finest and most complete line on the market today . . .

- **built-in fire detecting systems that quickly respond to smoke, heat or flame . . .**
- **all types of portable fire extinguishers and built-in fire extinguishing systems that kill fire fast . . .**
- **plus an expert fire protection engineering service that gives you unbiased advice on what is best for your particular fire hazards.**

Don't take unnecessary chances . . . the combined fire protection experience of PYRENE and C-O-TWO over the years is at your disposal without obligation. Get complete facts today!

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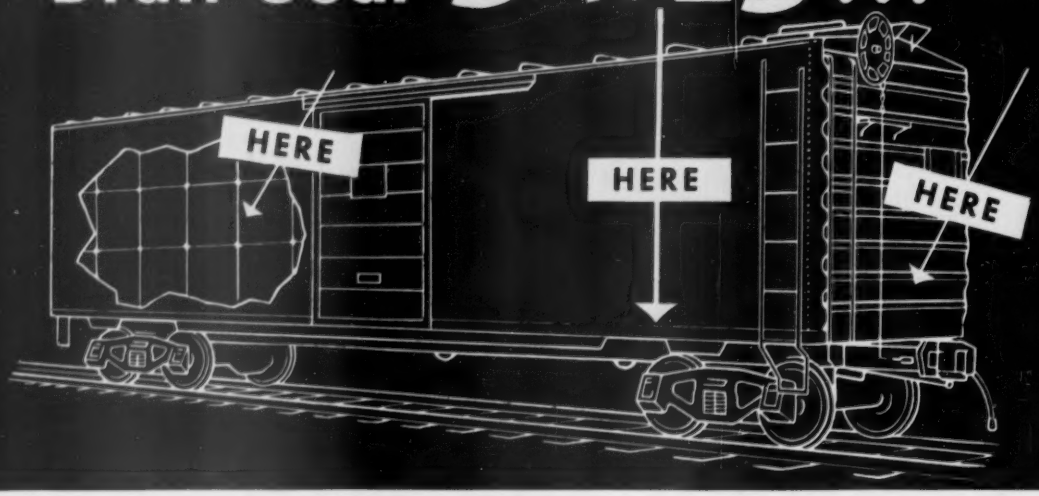
COMPLETE FIRE PROTECTION

portable fire extinguishers . . . built-in fire detecting and fire extinguishing systems

CARBON DIOXIDE • DRY CHEMICAL • VAPORIZING LIQUID • SODA-ACID • WATER • CHEMICAL FOAM • AIR FOAM

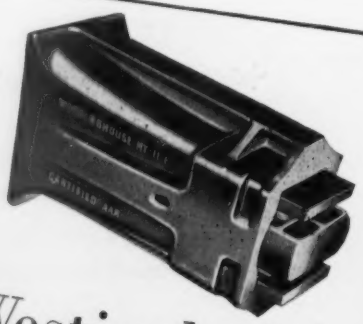
Where a Good Draft Gear SAVES...



...and Year after Year!

Cardwell Westinghouse is in the business of saving for America's railroads. That's the whole purpose of the Westinghouse Friction Draft Gear . . . to *save* needless destruction of valuable railroad equipment . . . *save* important lading and cut unnecessary damage claims. The Westinghouse Friction Draft Gear is a sturdy, dependable piece of equipment. Research and development will always keep Cardwell Westinghouse products abreast of the needs of modern railroading.

Cardwell Westinghouse Co., Chicago
Canadian Cardwell Co. Ltd., Montreal



Westinghouse
FRICTION DRAFT GEAR
Type NY-11-F
Certified A.A.R.

Specify
CARDWELL
WESTINGHOUSE

• Cardwell Draft Gears • Westinghouse Draft Gears • Cardwell Friction Bolster Springs •

Canadian Pacific Orders 173 Stainless Steel Cars

Aims for new traffic and economies with ultra-modern cars in gleaming stainless steel

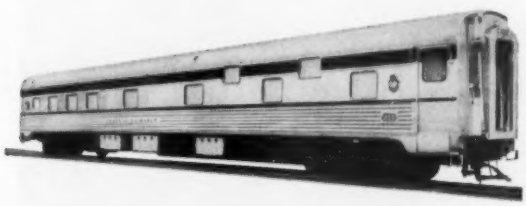
Lustrous beauty . . . roomy modern innovations . . . comfort at all speeds . . .

These are advantages every passenger will enjoy on 15 new transcontinental trains . . . comprised of deluxe streamliners now being built of chromium-nickel stainless steel. The Budd Company, Philadelphia, is filling this order for Canadian Pacific Railway.

Currently, two types are being delivered. One is a new design of sleeper, and the other is a scenic dome lounge car.

But all cars in this huge purchase will greatly reduce maintenance expense through use of austenitic stainless steel containing nickel.

36 Scenic Dome Beauties will be crossing Canada in the near future via CPR when Budd completes this order for stainless steel streamliners.



71 Stainless Steel Sleepers similar to this one are included in Canadian Pacific's order being filled by the Budd Co.

Over 70 tons of nickel-silver were used for interior hardware and trim. Combining lustrous appearance with corrosion-resistant properties superior to the usual brasses, this nickel alloy minimizes interior maintenance and expense.

The high strength-weight ratio of this stainless nickel alloy permits substantial reductions of deadweight, thus making possible lighter units without sacrificing strength or safety.

In addition, stainless steel containing nickel effectively resists the corrosive conditions encountered in everyday operation. As a result, the entire car structure will retain its impressive beauty year-in and year-out, with minimum maintenance.

Interiors will likewise be beautified for years . . . with hardware and trim cast in nickel-silver.

Alloys containing nickel may help you add beauty, cut bulk and deadweight, combat wear or corrosion, or meet other specific needs. When faced with metal problems, send us details for our suggestions. We'll be glad to help you.

Write today for your free copy of 32-page booklet entitled "Nickel Alloys In Railroad Equipment"

INCO
TRADE MARK

THE INTERNATIONAL NICKEL COMPANY, INC.

67 WALL STREET
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STOP RISING MAINTENANCE-OF-WAY COSTS WITH

AMCRECO

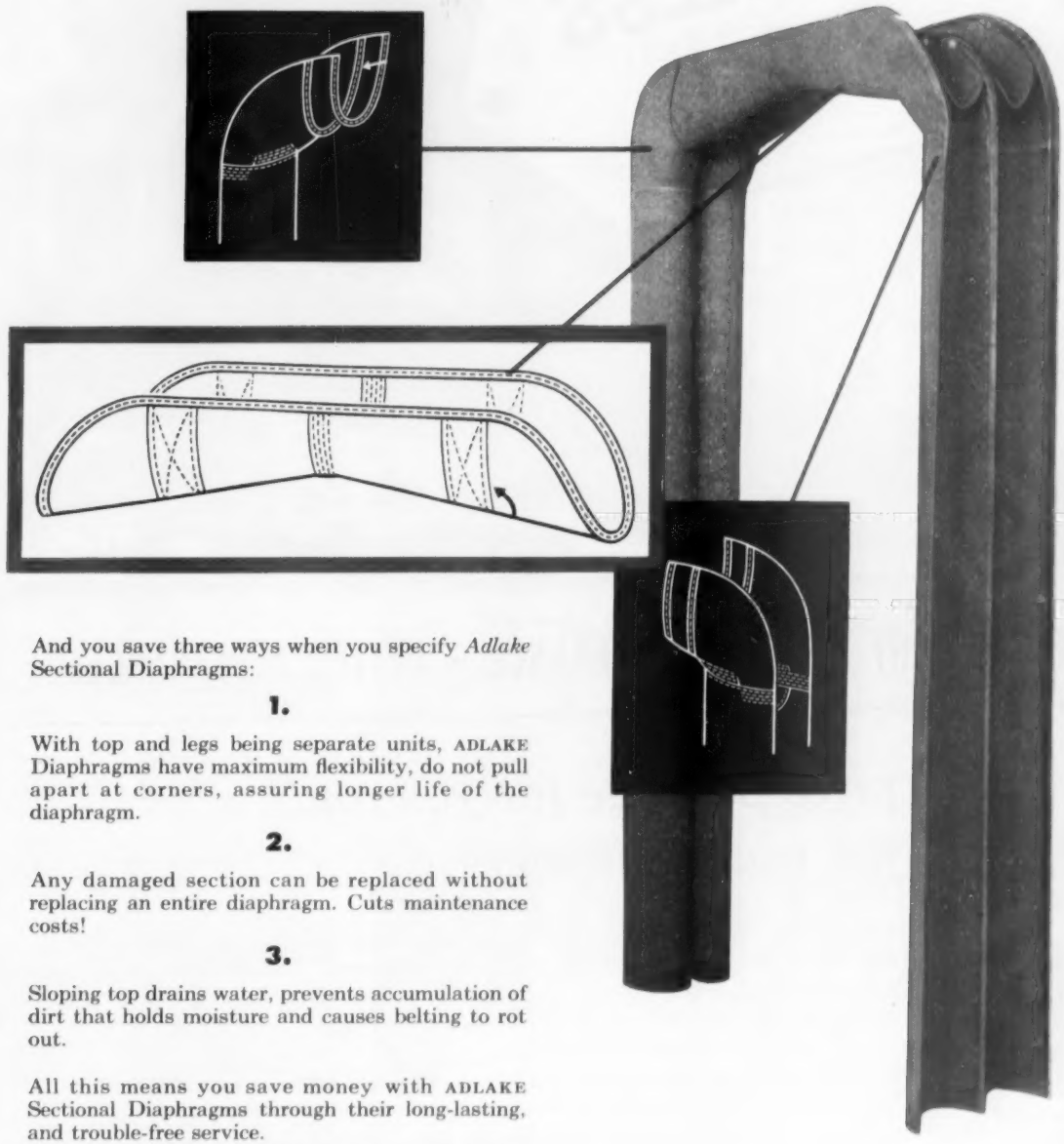
Here is a simple, effective formula for cutting your rising maintenance-of-way costs—*Cut costs by reducing the amount of maintenance needed—Reduce the amount of maintenance needed by using products that stand up longer and give extra years of maintenance-free service.* Amcreco cross ties, bridge timbers, poles and plank—pressure treated with creosote—fit this formula for cutting maintenance costs.

Take advantage of our nearly half-a-century of experience in treating and processing wood for the railroad industry. Any of our nearby sales offices will be glad to discuss your needs with you.

Amcreco
Lowry Process
Creosoted Products

CROSS TIES • TIMBERS • POLES • PLANK

sectional! That's the secret of Adlake diaphragm savings



And you save three ways when you specify *Adlake* Sectional Diaphragms:

1.

With top and legs being separate units, ADLAKE Diaphragms have maximum flexibility, do not pull apart at corners, assuring longer life of the diaphragm.

2.

Any damaged section can be replaced without replacing an entire diaphragm. Cuts maintenance costs!

3.

Sloping top drains water, prevents accumulation of dirt that holds moisture and causes belting to rot out.

All this means you save money with ADLAKE Sectional Diaphragms through their long-lasting, and trouble-free service.

Get the full story on ADLAKE's efficiency and economy today. Write us at 1150 N. Michigan, Elkhart, Indiana. No obligation whatever.

Adlake 97th year of serving the transportation and building industries

THE Adams & Westlake COMPANY

New York • ELKHART, INDIANA • Chicago

Established 1857

Manufacturers of ADLAKE Specialities and Equipment for the Railroad Industry

LESS WEIGHT · LESS MAINTENANCE · BETTER APPEARANCE

...prize package for you and for your customers

Stainless steel rail passenger cars give you in one package three big cost-cutting advantages—*less weight, less maintenance, better appearance.*

Stainless cars weigh less because a single stainless member often meets both structural *and* decorative requirements—thus cutting weight without sacrificing strength or safety.

Stainless cars require less maintenance because stainless—*painted or unpainted*—resists attack by dirt, fumes, weather and the strongest cleaning compounds.

As for appearance . . . just look at the newest, most luxurious cars on the rails today.

Next time you buy passenger cars, make it easier (and more profitable) for yourself—more attractive to your customers. *Make it stainless.*

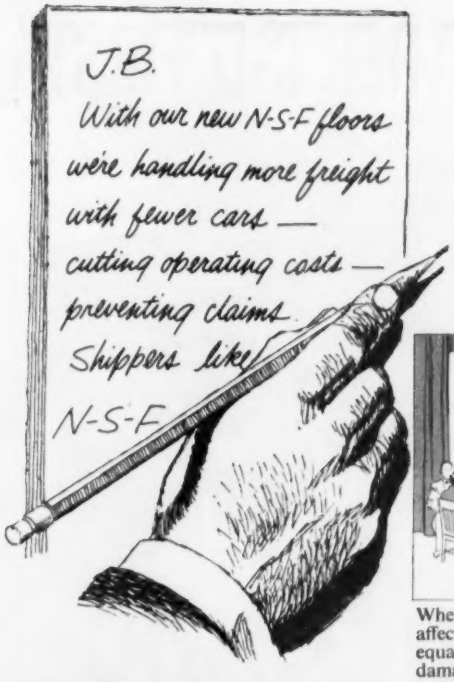
VANCORAM

VANADIUM CORPORATION OF AMERICA

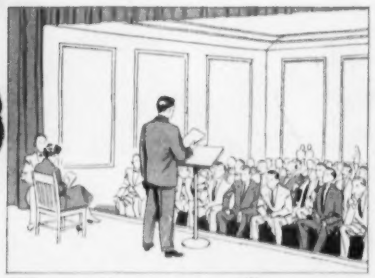
420 Lexington Avenue, New York 17, N. Y.

DETROIT · CHICAGO · PITTSBURGH · CLEVELAND

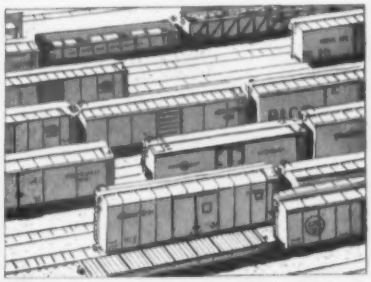
Producers of alloys, metals and chemicals



How railroads progress and reduce operating costs with Nailable Steel Flooring

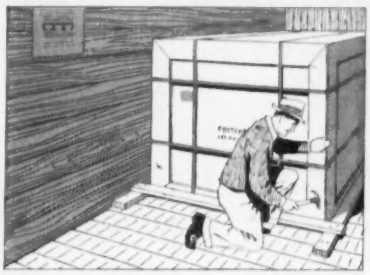


When traffic managers discuss matters affecting car supply, a recurring topic is inadequate flooring. Floor failures cause freight damage, limit use of mechanical equipment.



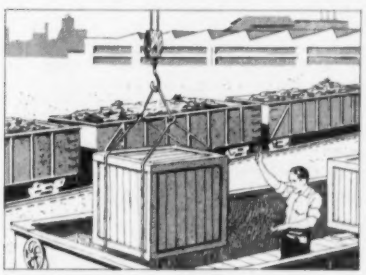
Seriousness of the problem, as Railroad Shippers' Advisory Boards point out, is reflected in the number of cars rejected by shippers as unsuitable for safe transportation of freight.

Railroads attempt to keep up floor care. But they're squeezed by rising labor costs, and loss of revenue during repairs. The positive solution: N-S-F—NAILABLE STEEL FLOORING.

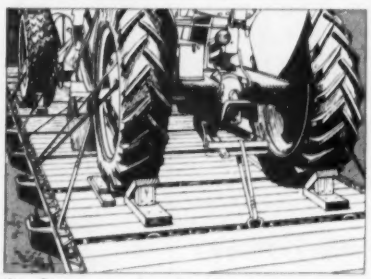


NAILABLE STEEL FLOORING provides a dependable, trouble-free surface that withstands repeated nailings and affords the best possible security for all kinds of freight.

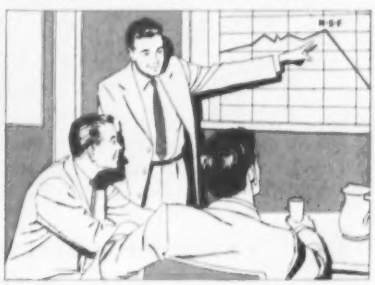
In addition, N-S-F withstands the strain of mechanical loading devices. And—like no other car floor—it actually adds strength at critical points of the car structure.



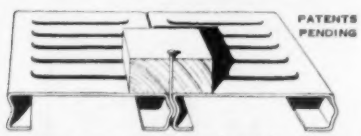
In gondolas N-S-F supplies the impact- and wear-resistance of steel, and adds nailability. It does away with the need for different type gondolas for rough and finished loads.



On flatcars equipped with NAILABLE STEEL FLOORING, loads can be blocked with nails—and can have the added security of straps or wires fastened to multi-position fixtures.



Car departments can show that N-S-F, already installed in over 16,000 cars, far more than repays its higher initial cost, successfully meets shippers' needs, attracts more freight.



NAILABLE STEEL FLOORING is made of low-alloy N-A-X HIGH-TENSILE steel—remarkably strong, corrosion-resistant—formed into channels, and welded together to form a unique nailing groove. Nail is clinched in a tight grip of steel, yet can be easily removed.

COMPLETE engineering and cost data available from Great Lakes Steel Corporation, Steel Floor Division, Ecorse, Detroit 29, Michigan. Sales representatives in Chicago, Philadelphia, St. Louis, Atlanta, Omaha, Denver, San Francisco, Montreal and New York.

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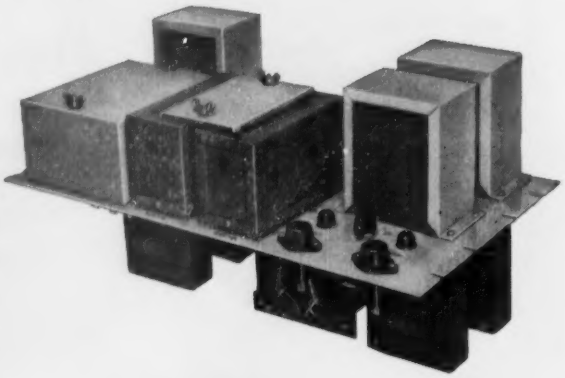

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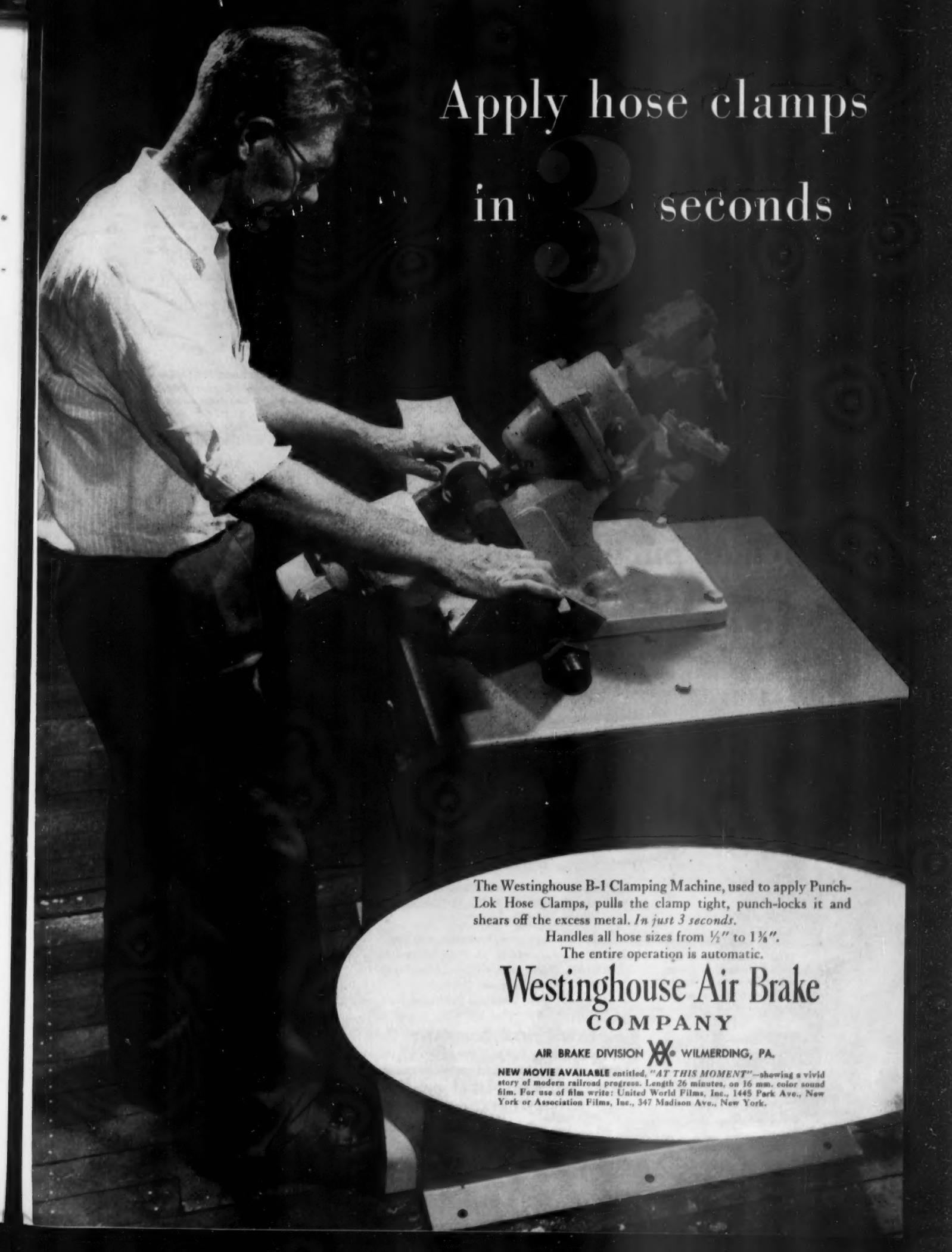

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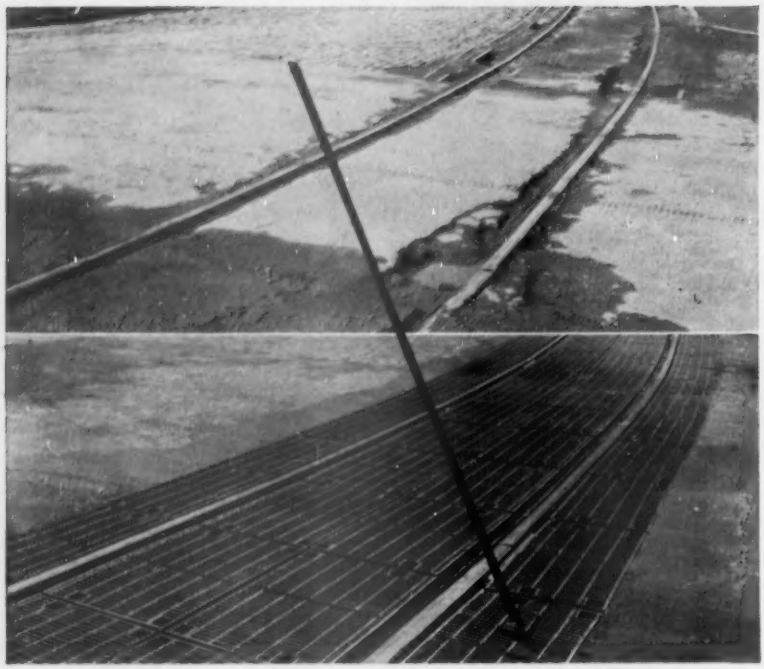

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Current Publications

PERIODICAL ARTICLES

RIDING THE RAILS WITH THE FAST FREIGHT, by Evan McLeod Wylie. American Magazine, July 1954. Reprinted by Association of American Railroads, Transportation bldg., Washington 6, D.C.

The exciting 2,000-mile adventure of a big red box car named "Lucy," as reported by Mr. Wylie, who followed "Lucy" in her travels.

•

THE GREATEST CAPITAL-GOODS SALESMAN OF THEM ALL. Fortune, October 1954, pp. 113-115. Time Inc., 9 Rockefeller plaza, New York 20. Single copies, $1.25.

A brief sketch of the career of the fabulous "Diamond Jim" Brady.

•

HOW A CITY AND A RAILROAD CAN STIR UP BUSINESS. Business Week, September 25, 1954, pp. 62-88. McGraw-Hill Publishing Company, 330 W. 42nd st., New York 36. Limited supply of tear-sheets available free.

Philadelphia is scraping the moss away with Penn Center—an ambitious development for the heart of the city. Subtitled The Philadelphia Story, this three-part article first describes the new center; the second part recounts the story of Albert Greenfield, prominent real estate man and promoter, who has not been able to get a foot in the Penn Center development and the third part tells the story of the reformed city government under Mayor Joseph S. Clark.

PAMPHLETS

TECO PROJECT SHEET 4544. Timber Engineering Company, 1319 18th st., N.W., Washington 6, D.C. Free.

Shows how clear, unobstructed cargo handling and storage space is being obtained economically by railroads and other transportation agencies, by use of clear span timber roof trusses in construction of new freighthouses and storage facilities.

•

THE TRAINING JOB AND HOW TO MEET IT. 24 pages, illustrations. International Correspondence Schools, Scranton 9, Pa. Free.

The correspondence approach to industrial training pioneered by ICS for more than half a century is reviewed in this booklet. It appraises the various ways that correspondence education can be adapted to meet training problems on either an individual or group basis.

the pioneer still leads

in TRACTION MOTOR BEARING DEVELOPMENT

The first anti-friction bearings applied to heavy-duty traction motors in this country—in 1926—were **SKF** *Bearings. Since then,* **SKF** *has pioneered these additional important developments in Traction Motor Bearing design—*

1939 - Crowned rollers which increased capacity.

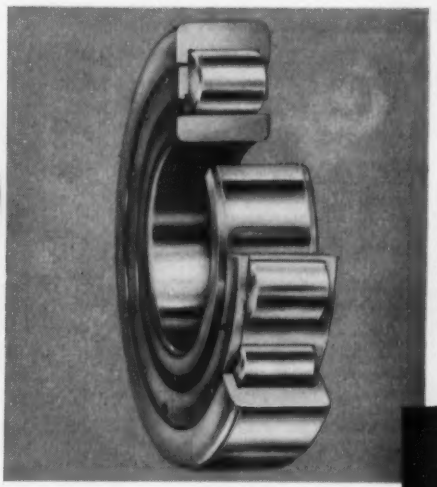
1943 - Assisted Railroads in developing "sealed-grease lubrication."

1945 - "High Capacity" Bearings. Larger and longer rollers further increased capacity without requiring additional space.

1948 - Cage re-design permitting complete disassembly and reassembly for inspection of all parts.

1952 - Longer life M-2 Cage, roller centered, while retaining all previous improvements. Sealed grease lubrication runs up to 500,000 miles without attention.

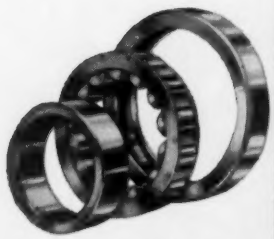
Here is today's SKF Pinion End Cylindrical Roller Bearing



Crowned rollers assure maximum capacity in minimum space.

Roller riding cage is easier to lubricate.

SKF's new M-2 Cage provides easy disassembly and inspection of all bearing surfaces.



***SKF**'S NEW M-2 CAGE — USED IN BOTH PINION AND COMMUTATOR END BEARINGS — Here's how easy it is to disassemble for inspection. Just slide out the inner ring. You can then move the rollers out of the outer ring groove, and rollers and M-2 Cage slide right out. Replacement is just as easy.*

Here is today's SKF Commutator End Traction Motor Bearing

Crowned Rollers.

Positively stabilizes the armature and holds it in its proper position in the motor frame.

Has M-2 Roller Riding Cage—same as Pinion End Bearing—for easy disassembly and inspection.

When you're laying-in anti-friction bearings, you can get design assistance from **SKF** Field or Home Office men who know the best ways to do the job.

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MAKING A 100,000 MILE RUN... STANDING STILL!

New locomotive-type test engine helps Socony-Vacuum continually improve your Diesel lubricating oils!

With this special engine, Socony-Vacuum engineers can test—in the laboratory—the performance of lubricating oils under the varying loads, speeds and temperatures encountered by Diesel locomotives in actual runs. This is just one of the many ways Socony-Vacuum cooperates with operators and engine builders to help solve today's Diesel operating problems.

Experience from such cooperative research efforts—plus exhaustive field evaluations—has produced Diesel lubricating oils that keep engines clean—keep costs down . . . oils which are proving eminently successful on many major roads today.

Why not use our experience—and proved products—to improve *your* operations?

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What's New in Products

Truck Crane Speeds Up Loading and Unloading

A self-contained materials handling crane for trucks is said to convert any standard truck into a dual-purpose hauling and handling unit. The unit itself will lift up to 5,000 lb at one time, swing it onto the truck, lift it off, and spot it anywhere within a 16-ft, 280-deg radius.

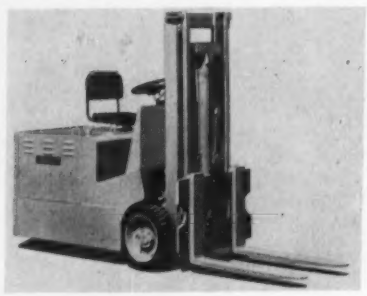
It allows mechanized loading and unloading anywhere a truck can be driven.

The complete unit takes up only 18 in. of space behind the truck cab. All mechanism is hydraulic, with controls operable from either side.

Two models are available: HB-50, horizontal boom, with optional boom lengths up to 16 ft; and EB-50, with a telescoping elevating boom with extensions up to 22 ft. *Truck-Crane, Inc., 130th & Halsted Sts., Chicago*•

Heavy Duty Winterliner

A new heavy duty winterliner, for cold weather head protection, has been announced. Called the "Arctic," the soft, close-woven wool-knit liner protects the head, neck and face, covering everything except the eyes. The front portion may easily be slipped down over the mouth when not needed to protect nose and cheeks from freezing winds, rain or snow. Six other styles of winterliners are made by the manufacturer. Literature containing complete information and pictures of all styles is available. *E. D. Bullard Company, 275 Eighth st., San Francisco 3*•



New Mercury Fork Truck

A new 6,000-lb capacity sit-down center control fork truck, called "Yank" Model 630, has been announced. The new model is said to have a higher maximum fork elevation, increased travel and hoist speeds, shorter turning radius, and will right-angle stack in narrower aisles. A new low-pressure, hydraulic hoist system, the manufacturer says, employs a single, simple acting hoist cylinder of shorter stroke which provides improved visibility of forks and load from operator's position. *Mercury Manufacturing Company, 4044 South Halsted st., Chicago 9*•

More Files Stored In Less Space

By employing a tilt-front drawer, "Super-Filer" filing cabinets are said to provide at least 18% more capacity than conventional rigid-front cabinets occupying the same floor area.

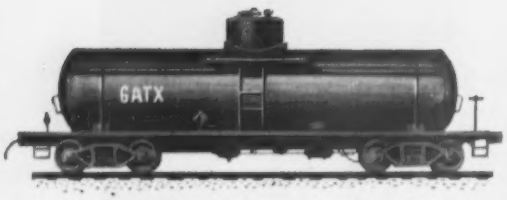
In addition to three, four or five drawer models, the file cabinets are also available with substitute drawers for cards, bills or other irregular-sized documents in a variety of combinations. The drawers, regardless of type, move on a ball-bearing suspension equipped with compression spring shock absorbers to quiet the impact of closing or fully opening. Special self-spacing, angle-supporting file dividers are available for the individual drawers. These units adjust automatically as material is added and prevent pressures from "binding" any of the contents. The cabinets are furnished in green, gray, mahogany or walnut finish with handles and trim in anodized aluminum. *General Fireproofing Company, Youngstown 1, Ohio*•

Testing tank car linings is a scientific job at General American. Our Research and Development Laboratory runs "commodity tests" on every liquid carried in GATX tank cars. These two-way tests examine the effect of the lading on the linings and fittings of the cars—as well as the effect of the car interiors on the ladings. They determine the best linings, parts and replacement parts for more than 200 different types of GATX tank cars. Results are also used by our mechanical department in setting standards and times of inspection for each car.

A large, fully-equipped laboratory supports General American's maintenance, design and production departments in building and operating the 47,000 car GATX fleet. The "lab" is one of the facilities that aids General American in giving shippers more dependable service for transporting liquids in bulk.

Car repair shops throughout the U. S. A.
Offices in principal cities

inside information on GATX tank cars



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The AAR— A Mirror of the Railroads

The Association of American Railroads had its twentieth birthday on October 12. Actually, of course, the association is much older than that, because many of the functions of the present AAR were performed by predecessor organizations — e.g., the American Railway Association, the Association of Railway Executives, and several departmental associations.

The present AAR embraces and continues some collective functions that date back a century —and which originated in the need for railroad cooperation in the interchange of traffic and rolling stock. Without such collaboration, the railroads could not have become, and could not continue to operate as, a single continental system of transportation. Except for the ability of the railroads to operate on this basis, it is not likely that railroads would have anything like their present extension. They would, instead, be limited in mileage; and their main service, probably, would be that of "plant facilities" for mines and heavy manufacturing enterprises.

It is not fully appreciated, even among railroad men, that most of the functions of the AAR are not those of the usual "trade association." Most other industrial enterprises have few absolutely necessary contacts with other companies in the same business. Chrysler and General Motors do not *have* to collaborate closely in order to provide their customers with automobiles. But in railroading — while the Union Pacific and the Santa Fe, and the New York Central and the Pennsylvania, for example, compete vigorously, they also have to collaborate with each other, and with all other railroads; and the AAR is the organization through which most of this collaboration occurs.

The AAR also performs some services that are not indispensable, but are highly advantageous. Such services include: The functioning of the Car Service Division, which maximizes the performance of the available fleet of freight cars; the interchange of non-mandatory information on improved methods and practices in all branches of railroad technology; systematic handling of explosives and other dangerous products; and technological research (e.g., on track, brakes, bearings).

Nobody in the railroad business questions the desirability of collective action by the railroads in dealing with such functions as the foregoing. When criticism of such activities occurs (and without lively critics, no large institution could keep alive and alert), the complaint is invariably that the effort should be extended.

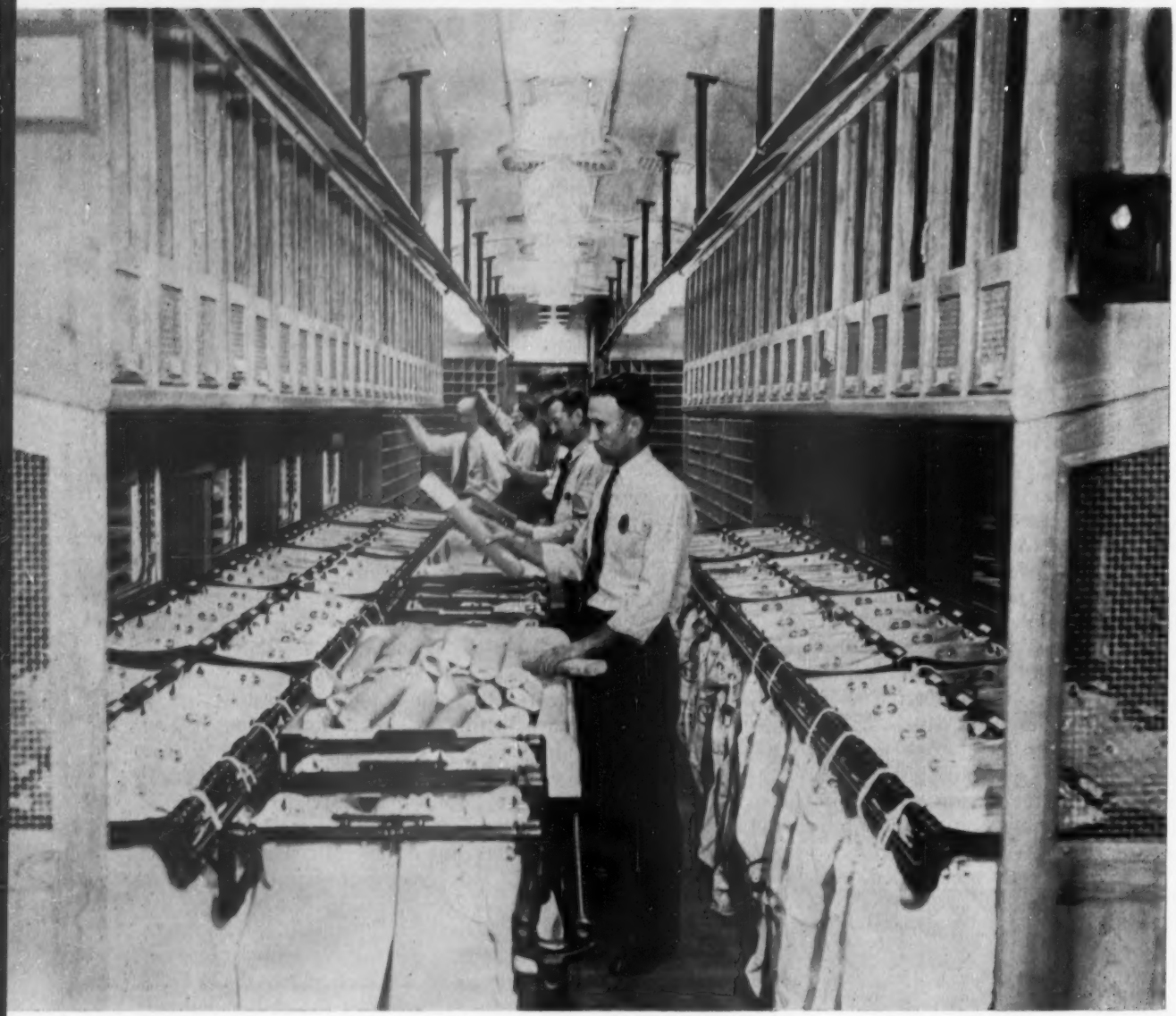
Where real controversy arises, as it sometimes does, over the functioning of the AAR, it is not usually the indispensable activities or the unquestionably desirable ones which give rise to the differences. The real argument comes at the top policy level—where it is possible for able and sincere men to hold contrary opinions. Such differences of opinion are especially likely to arise where the issues involved are highly complex, and where those who have to reach *some* conclusions regarding them find it inconvenient or impossible to spend enough time in conference thoroughly to understand each other, or the issues themselves. On some questions of policy, not resolving them is, in itself, a policy decision.

The AAR is not a pure democracy, but it leans much further in that direction than it does toward monarchy or even oligarchy. Like a legislative body, its faults are inseparable from its virtues—in that it can't be expected to show the smooth functioning of a well-organized dictatorship and still maintain general freedom to object and criticize. The element of virtue in this situation is certainly more than its disadvantage.

In short, as happens in legislatures or in large voluntary organizations—such as a church, a professional society, or a political party—the AAR is a pretty faithful reflection of the ability and zeal of its members. It has been truly said that a stream seldom rises higher than its source.

Your reporter—like a lot of other people—has his own favorite list of activities that he would like to see the AAR do more of (e.g., market research, and management education). There is nothing unhealthy in an association's slowness in doing all the good things it might do. When those of us with a missionary objective regarding this association are energetic and persuasive enough to convince a substantial number of the members that our zeal is well founded, the AAR will soon take on the pursuit of these objectives. The staff of the association, to the best of our observation, is as interested in pleasing the boss as are all intelligent employees of any going concern.

The AAR is a going concern, all right. Just where it goes and how fast is a matter largely in the hands of those who read these lines.

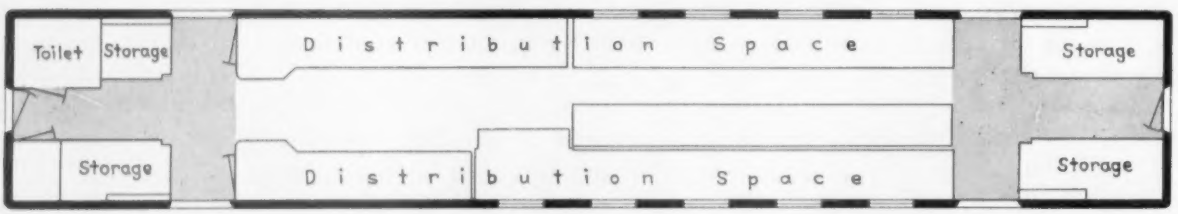


RAILWAY POSTAL SERVICE, for 90 years, has speeded mail delivery by permitting sorting en route of letters and parcels—a unique service performed by no other type of mail carrier except a few relatively short-haul "highway post offices"—modeled and operated in close conformity to RPO cars.

A SPECIAL REPORT . . .

Is the Post Office Fooling Itself?

Railroads seem to be losing the *right* to carry the mail—without being relieved of the *obligation* to carry it



What's ahead for railway mail traffic? How much of it will remain on rails? How much may be diverted to airways and highways? To what extent will any such diversion be based on better *actual* service or lower *actual* cost? To what exent will it be based on fallacy and propaganda?

By GARDNER C. HUDSON
News and Financial Editor

The importance—and the timeliness—of these questions arises from two factors:

(1) The Post Office Department's apparent desire to direct transportation of mail, wherever possible, from railroads to air lines or to highways; and

(2) The pressure which is being exerted on the department, by air and highway enthusiasts, to accelerate and extend such diversion.

Diversion Has Begun

To Air . . .

Air mail, of course, has long been a pet project of the department, intensively promoted and heavily advertised, even, in some cases, on mail boxes in railroad stations. But such mail historically had to be specially designated by the sender, who paid premium rates for the frequently unfulfilled promise of faster delivery.

In October 1953, however, the department began to carry *all* first-class mail at the regular three-cent rate between New York and Chicago and between Washington and Chicago on an "experimental" and "space available" basis.

The "experiment" has since been extended to three long-haul runs between New York, Chicago and Washington and various Florida cities; to three small "feeder" lines in the west, and, very recently, to 10 more "feeder" airlines in all parts of the country. Also, though it has not been publicized, the New York-Chicago air route is reportedly carrying Philadelphia mail which is back-hauled from (or to) New York by rail; and some New England mail, which is handled by rail to New York via Albany, and thence by air to Chicago.†

These "experiments" with air movement of regular three-cent letter mail have been termed a "success" by Deputy Postmaster General Charles R. Hook, Jr. It now seems certain that they will be continued and expanded, probably fairly rapidly—though the improved service which Mr. Hook claims they have produced is not fully borne out by *Railway Age's* own experience in transmission of letters between its New York and Chicago offices.

†Since this was written, the Post Office has announced plans to extend its "experiment" to routes of four major air lines serving 18 points in California, Oregon and Washington (See News pages of this issue).

MAIL RIDES FREE, when it is piled, as it frequently is, in aisles and doorways of RPO cars. Those aisles and doorway areas—shaded in this sketch plan of a typical RPO car—should be kept clear for reasons of safety, if nothing else; their use for mail transportation is not contemplated in railroad mail pay scales. But the Post Office insists that such areas be used, when mail volumes requires, to increase the amount of mail carried, at no increase in pay to the railroads.

. . . And to Truck

Truck transportation of mail is far beyond the "experimental" stage, with an even 500 routes reportedly in operation as of last June 30; as of that date, payments to truck operators for transportation of mail were said to be on an annual level of approximately $11,000,000.

In addition, there were, as of last July 1, 134 highway post office (HPO) routes, in which mail is distributed en route in motor vehicles having an interior arrangement generally similar to that of a railway post office (RPO) car.

Ten of these HPO routes were operated by railroads, 65 by the government, and 59 by private contractors. The trend seems to be away from straight government operation.

Diversion Propaganda Continues . . .

Truckers, however, are far from satisfied with their present share of mail transportation, and are making determined efforts to obtain not only more, but *most* of it—up, at least, to 300 miles.

As evidence of their ultimate aims, the July 12 issue of Transport Topics, official publication of the American Trucking Associations, stated that the $11,000,000 now being paid annually to operators of truck mail routes ("T Routes") represents only about one-tenth of the potential annual mail-pay for trucks estimated originally by mail-by-truck program planners." And the trucking industry's so-called "Independent Advisory Committee," in a recent elaborate brochure, said: "The total volume of mail within the 300-mile zone, which could be diverted to trucks, amounts to $120,000,000. Another $80,000,000, which now moves by Railway Post Office, could move at greater speed and less cost by Highway Post Office."

This same committee, in an apparent log-rolling bid for aviation support for its own mail-by-truck program, advocates use of airplanes for all non-local mails "whenever this would advance delivery."

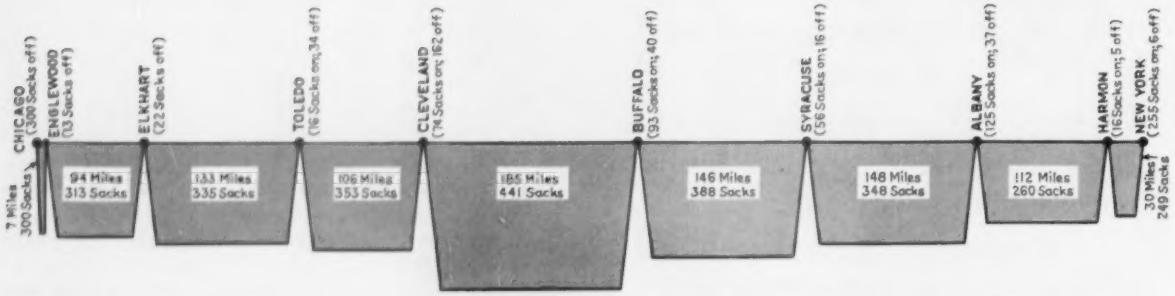
Aviation interests, while they have publicly expressed no special interest in sending mail by truck, have not been at all backward in promoting its transportation by air, as the following expressions of opinion, all quoted from a recent congressional committee report,* clearly show:

Air Transport Association of America—"First-class mail should be routed by air when, by so doing, such mail can be delivered to the addressee with a substantial saving in transit time."

Aircoach Transport Association, Inc.—"Most of the mail now being transported by surface can be more efficiently and economically transported by non-subsidized (sic) airlines."

Independent Military Air Transport Association—"The type of controlled experimentation in which the Post Office Department proposes to engage will fail to meet the

*Survey and Study of Postal Transportation—Second Intermediate Report to the Committee on Post Office and Civil Service by the Sub-committee on Postal Operations, House Report No. 2278, 83rd Congress, 2nd Session, July 19, 1954.


CHICAGO (300 Sacks off)
ENGLEWOOD (13 Sacks off)
ELKHART (22 Sacks off)
TOLEDO (16 Sacks on; 34 off)
CLEVELAND (74 Sacks on; 162 off)
BUFFALO (93 Sacks on; 40 off)
SYRACUSE (56 Sacks on; 16 off)
ALBANY (125 Sacks on; 37 off)
HARMON (16 Sacks on; 5 off)
NEW YORK (255 Sacks on; 6 off)
7 Miles 300 Sacks
94 Miles 313 Sacks
133 Miles 335 Sacks
106 Miles 353 Sacks
185 Miles 441 Sacks
146 Miles 388 Sacks
148 Miles 348 Sacks
112 Miles 260 Sacks
30 Miles 249 Sacks

INTERMEDIATE POINTS, and not just terminal points, benefit from the "on-and-off" nature of RPO service.

purposes of the department if it is restricted to the 'dribble' system and to the utilization of present schedules on a space available basis . . . . Unless arrangements are made for movement of first-class mail on a plane-load basis, the department will have failed in determining how and in what manner greater economy and efficiency can be achieved."

. . . And Is Having Its Effect

These arguments, and the activities behind them, are certain to continue—and they will probably become increasingly effective in taking mail traffic away from railroads. For, however distatseful it may be from the railroad standpoint, there is no point in denying the existence of some degree of justification, both for the Post Office's own exploratory attitude toward new methods of mail transportation, and for some of the arguments being advanced by proponents of such methods.

As John C. Allen, until recently assistant postmaster general in charge of transportation, told *Railway Age* last year (October 26, 1953, page 15), "the mail-pay increases of recent years . . . have made transportation costs elatively more important to the department than was formerly the case. Thus, it is logical to take a new look at the situation."

Advocates of "all first-class mail by air" can quite safely claim that airlines can outstrip railroads in terminal-to-terminal transportation time between widely separated cities, and even between some which are not so widely separated, especially where such cities are directly connected by air but not by rail; e.g., Ithaca, N. Y., and Springfield, Mass.

The "Independent Advisory Committee to the Trucking Industry" has publicized a number of situations in which it claims trucks have improved, or could improve, allegedly slow mail service. Invariably, and sometimes without stating all relevant facts, it places on railroads, and railroads alone, all the blame for the shortcomings it claims to have found. Thus, it seeks to make the railroads the scapegoat for its own unproved claim that use of trucks would speed up mail transportation on short hauls—which the committee defines as anything up to about 300 miles.

The railroads themselves, whenever they yield to economic necessity to the extent of abandoning another line or cutting off another passenger train, widen the breach, originally created by higher mail rates, through which air and highway carriers are gaining a stronger and stronger foothold in transportation of regular mails.

Advocates of mail-by-truck and first-class-mail-by-air both pay lip service to the idea that the Post Office De-

COST OF TRANSPORTING BY RAIL, in Storage Car Volume of Mail Carried in 60-Ft RPO Car on Typical New York-Chicago Run

Leaving Station	Sacks Loaded	Sacks Unloaded	Sacks in Car	Storage Unit Required*	Rate Per Mile†	Miles	Line-Haul Cost
New York	255	6	249	18-ft			
Harmon	16	5	260	18-ft	34.1¢	30	$10.23
Albany	125	37	348	24-ft	44.0¢	112	49.28
Syracuse	56	16	388	27-ft	48.4¢	148	71.63
Buffalo	93	40	441	30-ft	52.8¢	146	77.09
Cleveland	74	162	353	24-ft	44.0¢	185	81.40
Toledo	16	34	335	24-ft	44.0¢	106	46.64
Elkhart	....	22	313	24-ft	44.0¢	133	58.52
Englewood	....	13	300	21-ft	39.6¢	94	37.22
Chicago (arr.)	....	300	....	21-ft	39.6¢	7	2.77
Totals	635	635	....	....	....	961	$434.78

*Size of storage car unit required to handle specified number of sacks.
†Mileage rate for specified storage unit, including 10% increase effective April 1, 1954.

	Total, One Day	Total, One Year**	Average per Ton-Mile††
Line-haul cost for transportation only	$434.78	$113,477.58	
Piece handling charges (635 sacks @ 13.2¢ each)	83.82	21,877.02	
Total cost, transportation only	$518.60	$135,354.60	7.6304¢
Cost of 60-ft RPO car (961 miles @ 61.6¢ per mile)	591.98	154,506.78	8.7101¢
Actual cost of facilities for distribution of mail en route	73.38	19,152.18	1.0797¢

**Cost for one day, multiplied by 261 (365 days, less 52 Saturdays and 52 Sundays. No allowance made for holidays.)
††At estimated average weight of 40 lb per sack of mail handled.

partment should "make use of the means of transportation best suited to each specific mail-carrying job." The air enthusiasts even go so far as to say that diversion of all long-distance first-class mail from rail to air "would decrease total operating revenues of the railroads by less than one-quarter of 1%."

Diversion Has Its Dangers

To the Railroads . . .

It is almost superfluous to point out how grave such wholesale diversion of mail traffic would be to the railroads, but some of the more serious results which would flow from it should be noted. They are, briefly:

Loss of Operating Revenue—Truckers are openly shooting for diversion to highway movement of at least $200,000,000 in mail traffic; aviation interests estimate at $25,000,000 the amount of first-class mail they say should be diverted to air movement. Full diversion, in both cases, would cost the railroads $225,000,000 a year in gross revenues—about 73% of their total 1953 mail revenue of $310,000,000.

Further Curtailment of Service—Any such loss of mail revenue would lead inevitably to further curtailment of passenger-train services, on which mail is normally carried, and, probably, to the closing of additional stations and abandonment of additional branches or short lines.

Proponents of diversion may argue that the total represents only a little over 2% of all Class I railroad revenues, or that mail transportation, by itself, is not inherently a profitable operation for railroads on an industry-wide basis. But mail traffic is not evenly distributed over the 137,000 miles of railroad designated as mail routes, or among the 900,000 passenger train-miles which are involved in daily distribution of mail between 35,000 railroad-served post offices. There are many instances in which loss of mail revenue would mean the difference between a profitable, or a break-even, operation, and a losing one.

The National Association of Railroad & Utilities Commissioners, for example, at its 1953 annual meeting, went on record to the effect that even partial diversion of first-class mail to air alone "would reduce passenger-train revenues, increase unit cost of passenger-service operations and tend to aggravate the passenger-deficit problem, which is already recognized as the most serious and challenging problem in the regulatory field." A new short-line railroad, the Claremont & Concord, now being formed to operate a former Boston & Maine line in New Hampshire, says it can provide passenger service only "as long as the railroad continues to carry mail."

Impairment of Investment—The railroads have an investment estimated at $950,000,000 in facilities for handling and transporting mail—some 2,600 RPO cars and 11,500 baggage, express and freight cars, terminals, buildings, tracks, platforms, conveyors, trucks, etc. Some small part of this might be recovered, through sale of such facilities, or their conversion to other uses; but any such large-scale diversion of mail as is proposed would inevitably impose on the railroads a substantial capital loss.

Reversion to "Standby" Status—Serious as they would be, loss of revenue, curtailment of service and impairment of investment *might* be bearable *if* they were accompanied by necessary legislative and administrative action to free railroads from all responsibility for carrying any of the mail diverted from them, and from all penalties for any failure to do so. But nothing like this is proposed!

Putting the air-mail and truck-mail objectives together, however, appears to leave only one possible conclusion, namely that:

Railroads are in danger of losing all the mail traffic which any other form of transportation wants to carry.

The effect of the proposed diversions would simply be to reduce the railroads to a "standby" status, to be called on only when unexpectedly heavy volume or special emergencies made it impossible, inconvenient, or unprofitable for other carriers to handle the mail. Even under such inequitable conditions, failure to carry the mail—or to give it preferential handling, as required by law, over all other types of traffic—would subject the railroads to heavy penalties. They would, therefore, have no alternative except to maintain, almost intact, but for only partial and irregular use, their present facilities. They would have to retain, also, but for only partial and irregular employment, most or all of the nearly 50,000 railroad employees now engaged, wholly or partly, in handling mail in stations.

As Herbert B. Brand, now director of the Railway Mail Transportation Division of the Association of American Railroads, recently told the congressional committee whose report was quoted above: "The effect upon railroads of depriving them of volume while still requiring them to operate under a strict statutory obligation to transport all mail offered results only in higher costs for railroads and lower costs for competitive agencies." That, in turn, gives further, albeit spurious, weight to diversionist propaganda.

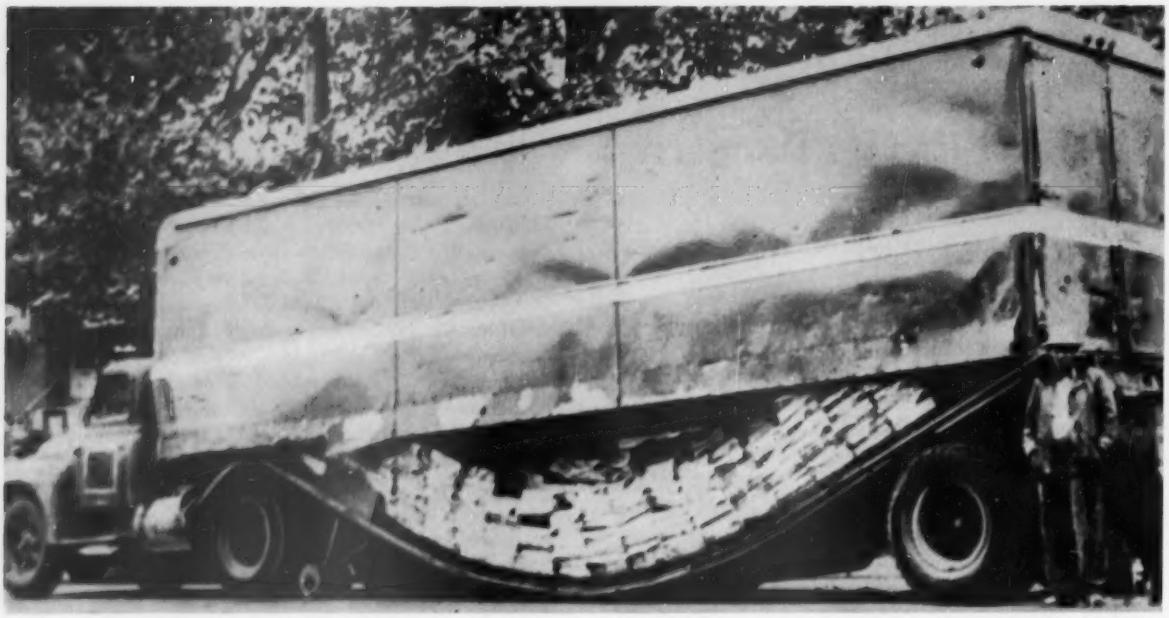
. . . And to the Post Office

But dangers inherent in large-scale diversion of mail from rail to air or highway are not limited to those confronting the railroads. Such diversion has its perils for the Post Office Department as well, and they fall into three classes—cost, service and administration.

Cost Savings May Be Illusory—Detailed comparison of costs of mail transportation by rail, truck and air on an actual ton-mile basis is, unfortunately, impossible, because neither of the other carriers provides the department with service comparable to that rendered by railroads.

Rail rates include such functions as construction and maintenance of physical facilities and provision of necessary manpower and mechanical equipment for handling mail, and protection and safeguarding of all mails in transit. Rates covering such services are necessarily higher than, and not fairly comparable with, those charged by other carriers for transportation, and transportation alone.

Because such services as sorting, separating and load-



WIDE WORLD PHOTO

THE MAIL MUST GO THROUGH! And in this case, it went—right through the bottom of the trailer. Use of inadequate equipment, or disregard for state weight laws may be helping truckers underbid railroads.

ing mail, and furnishing space therefor, are not covered in the rates of railroad competitors, those services must be set up by the Post Office at its own expense, and the cost of doing so must be added to air or truck transportation costs before any true comparison can be obtained.

But if precise cost comparisons are not available on a national or regional basis, enough specific figures are available to cast grave doubt on the claims of financial "savings" to be produced.

By Air—The Post Office, for example, has announced that it is paying air lines 18.688 cents per ton-mile to fly three-cent letter mail between New York and Chicago on a "space available" basis. This includes airport-to-airport transportation only. The department must, in addition, assume the cost of trucking mail over the relatively long distances between terminal post offices and airports in both cities, and must provide mail-distribution space either at post offices or airports.

The comparable ton-mile cost by rail, as shown in the accompanying table, is only 7.6304 cents per ton-mile. Addition of just over one cent per ton-mile for RPO car distribution space brings the total rail cost, for more service than the air lines provide, to only 8.7101 cents per ton-mile, or less than half the cost by air. Trucking costs, if present at all, are negligible, because of the proximity of post offices to rail terminals; and distribution space is provided in railroad-built RPO cars, the cost of which is included in the overall rail rate of 8.7 cents per ton-mile.

Using these figures, and the Post Office's own estimates that 2,160 tons of first-class mail will be available for the flying program on a 261-day basis, the National Postal Transport Association—an organization of RPO employees—has worked out the following comparison for the New York-Chicago route:

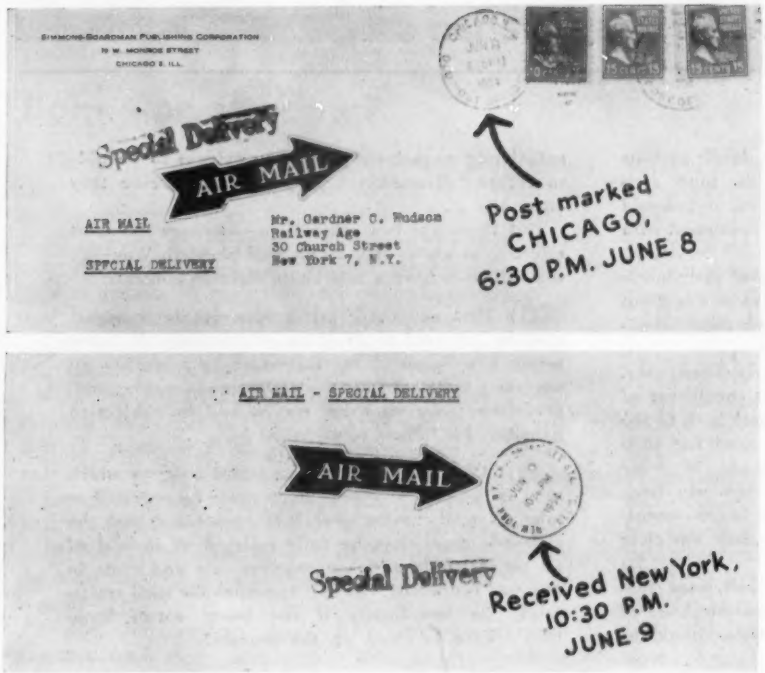
Air Movement:	
Distribution space	$ 15,650
Transportation (2,160 tons x 18.688 cents per ton-mile x 784 air-miles)	316,464
Total	$332,114*
Rail Movement (Two 60-ft RPO cars):	
Line-haul transportation cost	$226,955
Terminal handling charges	43,754
Distribution space in RPO cars (net cost)	38,304
Total	$309,013
Net minimum saving by rail	$ 23,101

Moreover, the NPTA points out, "the air program provides for exchange of mails between only two points, while the rail program on this particular line (New York Central) between the same two terminals provides for exchange of mails between 10 points. . . . The savings would be greater if we added the value of the tons of mail that were exchanged under the rail program at the various stations en route."

The same association also believes air transportation of ordinary three-cent mail will lead to: (1) An inevitable shrinkage in volume of premium-rate air mail; (2) "a corresponding loss in revenue to air lines for transporting this six-cent air mail"; and (3) demands from air carriers for "an increase in the 18.688-cent rate for transporting first-class mails, as well as an increase for regular six-cent air mail."

"It is extremely doubtful," the association's study continues, "that rates for flying all first-class mails could be established at the low rate of 18 cents per ton-mile for other than major air lines. This is particularly true in reference to 'feeder' air lines. Even should such a low rate, or a lower rate, be established, the overall cost to the taxpayer would not be reduced, because any defi-

*Plus undetermined ground trucking charges.



WHAT HAPPENED TO AIR MAIL "SPEED"? The letter at the left, from one *Railway Age* office to another, and clearly marked "Air Mail—Special Delivery," was postmarked at Chicago at 6:30 p.m. June 8, and received at New York at 10:30 p.m. June 9. It was delivered to *Railway Age's* New York office about 8:30 a.m. June 10. Allowing for the time differential between Chicago and New York, the letter took 29 hours, post office to post office; 39 hours from sender to addressee—all in good weather, and over a route where normal flying time is three or four hours, normal rail time 16 hours. Content of the letter, incidentally, was an urgent report on the annual meeting of the Association of American Railroads' Purchases & Stores Division, held at Chicago June 7-9, and covered in *Railway Age* June 14. The mail's failure was overcome by transmitting the letter's entire contents, from a carbon copy, by Teletype—at considerable added expense to *Railway Age*.

ciency in air line incomes caused by such low rates would be made up by increased subsidies having to be paid to these operators by another government agency."

The virtual impossibility of establishing a general transportation rate as low as 18 cents per ton-mile for movement of first-class mail by air is indicated by the fact that present mail rates for some of the smaller air lines run as high as $2.58 per ton-mile (see News pages of this issue).

By Highway—Detailed comparison of unit costs of mail movement by rail and by truck is even more difficult than the rail-air comparison, partly because most truck movements so far are over relatively short distances, where precise rail costs cannot be easily separated, but particularly because neither the Post Office nor truckers have yet released any reliable figures on amounts of mail handled. Terminal points and annual contract prices are announced as new contracts are awarded; but, in the absence of any information as to amounts of mail carried, these figures have little meaning. Even the announced contract price may be misleading, because it usually covers only a specified number of trips. Extra trips, if needed, are paid for on a pro rata basis. Hence, the total actual cost for any given truck service may be substantially greater than the published contract price.

Certainly the "savings" estimated by the truckers' Independent Advisory Committee are heavily loaded in their favor, in at least two directions:

(1) *Loading assumptions are inconsistent*—Truck mail contracts are based, in general, on mileage to be traveled and on cubic capacity of the truck or trucks to be used—although there are wide and inexplicable variations in contract prices for trucks of the same size. The truckers estimate that *all* trucks will *always* be loaded to absolute maximum capacity, with blithe disregard for the fact that volume of mail on any given day or days may be insufficient to permit such maximum loading. But at the same time they assume that railroad cars are consistently loaded to less than their full capacity.

Specifically, they estimate that a 30-ft truck trailer of 1,575-cu ft capacity *always* carries 500 or more sacks of mail; but that a 30-ft unit of 2,160-cu ft capacity in a railway storage car *never* carries more than 440 sacks. Likewise, they assume that mail in a railway car is never piled more than six feet high from the floor, whereas, in practice, it is normally piled at least eight feet high—which simply means that the amount of mail transported is increased by about one-third at no increase in cost.

(2) *Price-volume variation*—Truck mail contracts, made for a year or longer, are, as stated above, based on capacity and mileage. They bear little relation to amount of mail actually carried, and cannot be reduced if volume diminishes. Rail rates, on the other hand, are based on space used on 50% of the days during the preceding month; they may be, and frequently are, changed from month to month. Likewise, the rail space authorization—and the rail rate—may be, and in common practice is, reduced at any junction point where enough mail is unloaded to permit use of a smaller unit of car space.

Putting the two factors together means simply that truck mail rates, while they may be based generally on *anticipated* volume, bear little or no relation to *actual* volume; rail rates, on the other hand, can be, and are, adjusted in line with volume actually handled from month to month and from point to point.

The National Postal Transport Association believes, moreover, that many of the 500 or more T-routes now in operation have been bid in at prices which are too low to permit permanent operation on a satisfactory basis. In many cases, it says, original bids (on which many routes are still operating) were based on excessively long working hours for drivers; on employment of unqualified

WHAT CAN BE DONE?

The problem of mail diversion is a deadly serious one for the railroads. It is rendered the more serious because they cannot presently afford, and should not be expected, to spend money, or experiment with new methods, to improve their own mail service so long as the threat of diversion hangs over their heads —so long as the traffic for which the money is spent may be taken away from them before their investment can be recovered.

The Railway Mail Transportation Division may, of course, be depended on to combat the threat of diversion by presenting facts and figures both to the Post Office and to Congress as the need for such presentation arises. Individual railroads, in some instances, will be able to hold or even win back mail traffic by concessions in rates or improvements in service, or both, where they can see their way clear to do so.

Meantime, mail traffic moving by rail must consistently be handled at the highest possible level of efficiency. And railroad men, as citizens, should be sufficiently acquainted with the problem to be able to refute "diversionist" propaganda wherever they encounter it.

But there are two other steps—perhaps the most effective of all—which might well be tried. Wouldn't the railroads have a legitimate right to contend:

(1) That any other carrier desiring to transport mail be required to do so on substantially the same terms now imposed on railroads; i.e., provide all necessary terminal facilities and manpower, give mail preference over all other traffic, and be subject to penalties for failure to perform?

(2) That the form of transportation to which mail is diverted over any given route be required to take *all* mail moving over that route; and that the railroads themselves be fully relieved of it, and of all responsibilities, labor requirements and costs in any way connected with it? Appetites for mail traffic might be less hearty if the heavy eaters knew they'd have to clean up the crumbs!

personnel; on non-compliance with various state laws or safety regulations; or with carriage of insufficient insurance. It predicts that truck-mail costs are bound to rise, as unions, Post Office and state authorities come to insist on employment of qualified personnel, on observance of Interstate Commerce Commission rulings as to working hours and insurance requirements, and on provision and maintenance of adequate equipment.

When, as and if such conditions are made a prerequisite to a mail contract, it is not unlikely that many truckers will suddenly find the business to be unattractive, except at prices which the Post Office, in its turn, will not like.

Terminal Facilities Will Be Expensive—Another important factor will enter the comparative cost picture if diversion either to air or to highway materially increases in volume: The Post Office, or some other department of government, will be forced to make a major capital investment to buy or build new mail handling facilities to replace those now provided by railroads.

Neither air lines nor truckers have indicated any desire to provide, as railroads do, facilities for handling, sorting or storing mail. The Air Transport Association of America, in its presentation to the congressional committee whose report was previously quoted, said frankly: "The Post Office Department should acquire and assume responsibility for all air mail facilities and space at airports."

And the truckers' Independent Advisory Committee, in its expensive brochure, speaks over and over again of the necessity for the department to secure "adequate terminal facilities" before truck mail can reach the potential growth which the committee envisions for it.

How much such facilities may cost, on a nationwide basis, is problematical,* but at present real estate and construction prices it could hardly be less than the railroads' present investment in mail-handling facilities—nearly one billion dollars. As a straw in the wind, at Chicago alone, the government spent $6 million just to buy one building to facilitate its mail-by-truck program—an amount approximately equal to the entire annual savings which even the truckers themselves claim for that program to date.

That particular building was purchased for Post Office use by the General Services Administration. Because of that backhanded method of acquisition, its possession and use may give the appearance of saving the Post Office some money.

The truckers can hardly be expected to hesitate in claiming that any such saving is solely and wholly attributable to their "mail-by-truck" program. But the cost is there, nevertheless; the taxpayers who make up the Post Office's annual deficits are still paying it. The money just goes into a different pocket!

What About Service? —Even more difficult to analyze, because experience is still so limited, is the question of what, if any, overall service gains may be anticipated from widespread shifting of mail traffic.

Terminal-to-terminal transport time by air is *not* overall transmission time from sender to addressee, which is the public's principal concern; and air lines have not yet, despite the advantage of government-provided airways, succeeding in matching railroad dependability on a day-in, day-out, year-round basis.

Truck performance, however good on selected short hauls between a few specific points, is still a long way from having proved its ability to efficiently serve the nation's 35,000 railroad-connected post offices.

And Administration?—Widespread truck service, by forcing the department to deal with an infinitude of

*There is no known estimate of the total cost of new terminal facilities which might be required by maximum diversion of mail to air or truck movement. But the NPTA claims that, in at least one individual case where an estimate was made, no allowance was included for toilet facilities for Post Office personnel.

small, individual operators, will impose on it a multitude of administrative and accounting problems, which it does not now encounter in dealing with a comparatively few organized railroads. And truck and air service both will require a complete revamping of present Post Office procedures, staffs and schedules.

Bone—or Shadow?

The foregoing analysis makes one fact abundantly clear. There are many uncertainties, both of cost and of service, inherent in any large-scale shift of mail traffic from railroads to trucks or to air lines. The Post Office may be fooling itself—and the mail using public—if it expects to achieve any substantial permanent savings in cost, or any important permanent improvements in service, by going over, on a national basis, from rail to air or highway movement.

Rail Charges Are Reasonable—The fact is that railroad mail charges, even as increased since World War II, are reasonable. In the government's 1953 fiscal year, they accounted for just 12½% of the Post Office Department's total expenses of $2,760,000,000. Only about two-thirds of that 12½%—the most profitable two-thirds—would be taken away from railroads even under the most extreme proposals yet advanced by the "diversionists."

Hence, any savings from diversion would have to come from the approximately $225,000,000 paid to railroads for handling that mail which trucks and air lines want to carry.

If they carried it for two-thirds of what the railroads charge—which is about what truck propaganda indicates—the net saving would be substantially less than 3% of the department's total expenses. And that 3% would be reduced by the additional costs which the Post Office (or some other department of government) would have to incur to provide facilities and labor now furnished by railroads, but not contemplated in rates suggested by their would-be competitors. So the "saving" might well turn into added overall cost!

Rail Service Is Good—The fact is, also, that railroad mail service is good, because the railroads have spent millions of dollars and built up large and efficient organizations to make it good and keep it good. There may, admittedly, be some places between which other forms of transportation may offer service advantages which railroads cannot meet—just as they cannot meet all competition for freight and passenger business. But there is certainly no assurance that other forms of transportation, separately or together, can surpass, or even equal, overall railroad performance on a daily, nationwide basis!

In short, if it rushes hastily, or too heavily, into other forms of transportation—if it gives up too easily its close 90-year connection with the railroads—the Post Office Department is likely to find itself in the position of the dog in the ancient fable. By reaching for the bare shadow of promised cost economies and service improvements, it may lose the bone—the efficient, dependable, reasonably priced service it already has!

HOW RAILROADS CARRY THE MAIL

Types of Service—Railroads provide two classes of mail transportation:

(1) Storage service, i.e., straight transportation of mail from one city to another, which requires the extra services outlined below; and

(2) Railway Post Office (RPO) service, in which mail is transported, and also sorted en route, in specially equipped cars. These cars must usually be placed in stations at the Post Office Department's convenience, well in advance of train departure time, and regardless of the extra expense (for switching, heating, lighting, etc.) which such advance placement may impose on the railroads.

Method of Payment—Both types of service are paid for on a *space* basis, at stipulated rates per mile for different sizes of RPO cars or different units of storage space, plus, for storage service, a fixed loading and unloading charge. The Interstate Commerce Commission sets the rates according to an average-cost formula designed to take into account light-volume, scattered movements, as well as heavy, high-density runs.

There is no weighing of mail carried by rail. By loading mail above authorized limits, or in car doorways, the amount actually carried in any given unit of space frequently exceeds the arbitrary quantities on which space rates are based.

Extra Services—In return for these fixed *space* rates, the Post Office requires railroads not only to carry mail, but also to:

(1) Build, operate and maintain all RPO cars to rigid Post Office specifications;

(2) Provide, at all points where mail is handled, all manpower or mechanical equipment necessary to handle all mail between point of contact with the Post Office vehicles and trainside;

(3) Furnish all necessary facilities for protecting and safeguarding mail while it is in railroad custody;

(4) Absorb, without special remuneration, extra switching costs and other added charges involved in placing RPO cars at stations in advance of train departure time to suit the Post Office's convenience; and

(5) In storage service, provide railroad personnel to:

(a) Load and unload mail;

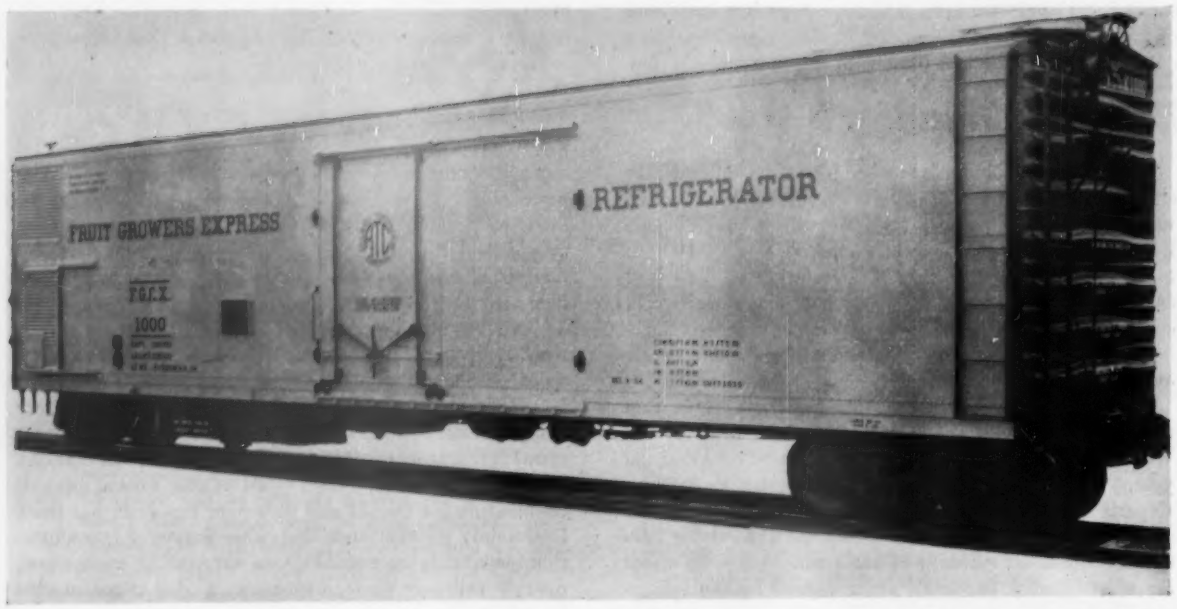
(b) Make appropriate separations, specified, in many cases, by the Post Office;

(c) Put off and take on mail at stops, with the further need for separation by sacks; and

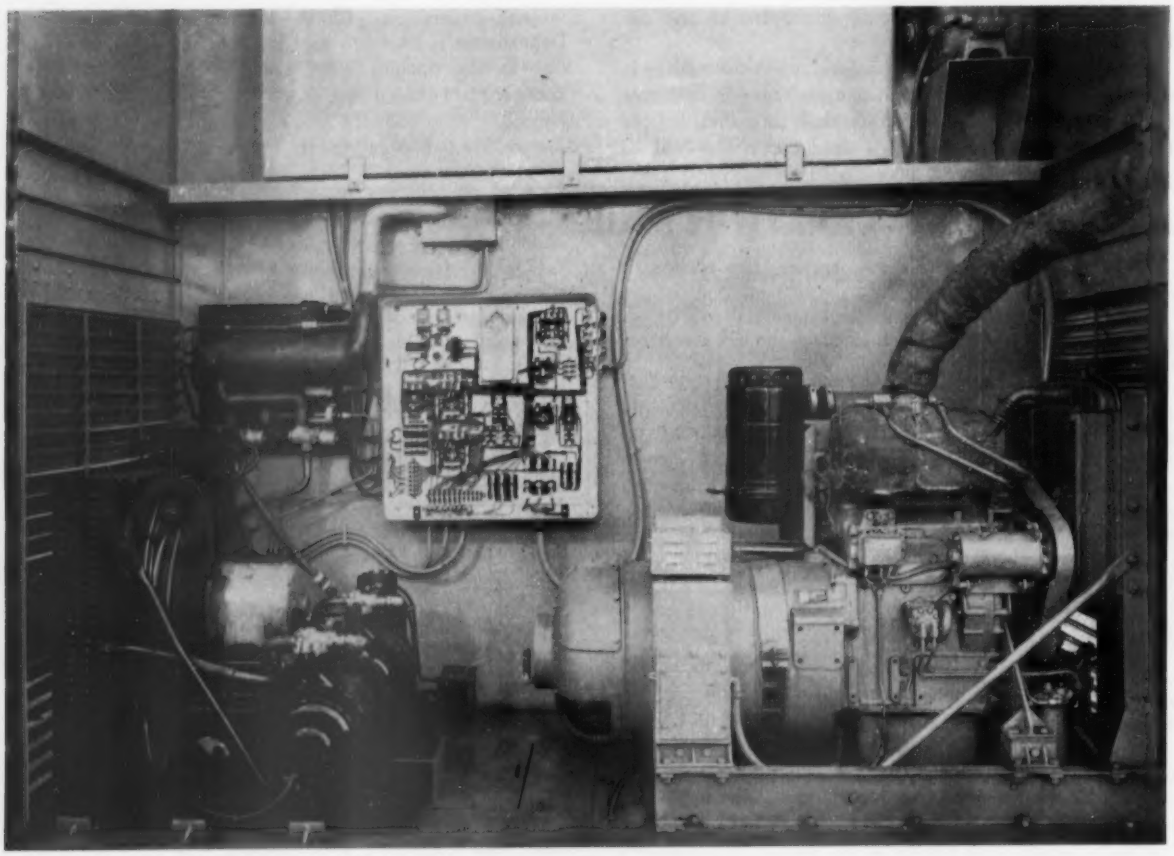
(d) Make separations for delivery to star and truck routes at terminals.

Preferential Treatment—Railroads are required by law to give mail preferential handling over all other types of traffic. In an emergency, says the law, even passengers must wait while mail goes through.

Penalties—Railroads are subject by law to severe penalties for failure to meet Post Office requirements in transportation of mail. No such penalties are either imposed, or proposed, on any of the other present forms of mail-carrying transportation.



FRUIT GROWERS EXPRESS built 100 of these 50-ft, 70-ton all-purpose mechanical refrigerator cars in 1954.



MECHANICAL REFRIGERATION unit installed in FGE-WFE-BRE all-purpose refrigerator car.

A Pioneer in Mechanical Cooling

Fruit Growers Express and associated companies (Western Fruit Express and Burlington Refrigerator Express) now operate 447 mechanical refrigerator cars—160 more due early in 1955

The Fruit Growers Express Company built its first mechanically cooled refrigerator car in 1931. Further experiments along this line were deferred during World War II, but tests were begun in 1948 with 16 cars having nine different types of cooling equipment. With its associates—Western Fruit Express and Burlington Refrigerator Express—it now operates a fleet of 447 mechanical cars, including 384 "jumbo" 50-ft and 63 40-ft cars. It is expected that another 160 of the 50-ft cars will be built by FGE and its associated companies early in 1955 to make the total ownership as follows: Fruit Growers Express, 417; Western Fruit Express, 160; Burlington Refrigerator Express, 30; grand total, 607 cars.

These figures were supplied in a discussion at the September 13 meeting of the Chicago Car Foremen's Association by H. M. Nelson, general mechanical superintendent, FGE, WFE and BRE, who said that 446 of the cars now in service have Frigidaire mechanical cooling equipment and one a Thermo-King diesel-engine-driven system. The cars average about two loaded trips to one of water-ice cars and, to date, have carried over 12,000 loads and given 21 million loaded car-miles of service.

Wide Temperature Range

Mr. Nelson further commented as follows: "Our earlier type mechanically refrigerated cars were used only for transporting low-temperature frozen commodities. They were designed to maintain only zero deg F temperature or lower within the car. However, to accommodate the fresh produce in addition to the frozen, our latest cars are arranged to provide any car temperature from zero to 70 deg F and are all-purpose cars, used for either fresh or frozen loadings. To date, fresh perishable produce handled in these cars includes potatoes, grapefruit, pears, apples, peaches, cherries, apricots, tomatoes, celery, meat, evergreens and flower bulbs.

"Providing a mechanical car for fresh produce introduced the problem of protecting the load from below freezing outside temperatures. In a standard water-ice car we obtain this protection with charcoal or alcohol heaters.

"The all-purpose mechanical car provides electric resistance heaters for supplying the necessary heat. The car thermostat is set to maintain the desired car temperature and the equipment automatically furnishes either heat or refrigeration as required.

"Conventional water-ice refrigerator cars have handled all types of perishable commodities and been in service on railroads for many years. This type of car has been constantly improved to its present stage and is an efficient vehicle for perishable commodities generally. It does not, however, meet shipper demand for consistent zero in-transit temperatures for frozen foods, particularly the frozen citrus juice concentrates; hence the development of the mechanically refrigerated car.

"This car offers a number of advantages over the conventional water-ice-and-salt refrigerator cars. It maintains a lower constant temperature and is equipped with automatic temperature control. Pre-cooling time is reduced to 6 to 12 hours as against the 24 to 36 hours required to bring the standard car to satisfactory loading temperature.

"The mechanical car, fully serviced, is much lighter in weight than the standard car serviced with ice and 30 per cent salt, and provides larger load capacity.

"Reduction of claims for spoilage and longer life of the cars themselves—and of tracks, switches, and bridges, since there are no brine drippings from the mechanical car—also favor its continued development. When solid trainloads of mechanical cars become possible, transit time can be considerably reduced by elimination of stops at icing stations and the elimination of switching to and from icing stations.

"By maintaining a lower constant temperature than is obtained in a water-ice car, the mechanical car is a 'natural' for the transportation of frozen commodities, requiring zero degrees in-transit temperatures within a narrow temperature range; these requirements are attained and maintained in the mechanical cars.

"Up to the present time we have been hard pressed to keep pace with the development and demands of the frozen-food industry and particularly that of the Florida citrus-juice concentrate processors; this latter industry has expanded very rapidly in the last few years and is the spark plug for the development and acceptance of the mechanical car."

17 Days Without Refueling

According to Mr. Nelson, the FGE mechanical cars have ample fuel capacity for the usual coast-to-coast shipments including precooling and holdover at destination. In fact, with the power plant in continuous operation, the latest type car is said to run about 17 days on the initial fuel supply. Each car is equipped with a standby connection which permits operation on sidings from a standby electric power source.

In construction, the mechanical car is similar to a water-ice car, having the same type AAR steel superstructure, steel underframe, roof and ends. Only a single machine compartment is required instead of ice bunkers.

The car is heavily insulated with 6 in. of insulation in sides, ends and floor and 9 in. in roof; it also has an all-welded metal subfloor not usually applied in a standard water-ice car and has a heavy coating of Insulmat on the inside of the steel shell to seal the exterior surfaces against heat leaks and moisture infiltration.

Other features include sliding doors, 6-ft 0-in. wide, roller bearings, rolled-steel wheels, rubber draft gear, and cushioned trucks with long spring travel.

It was brought out in the discussion that mechanical

cars require special servicing by trained personnel to insure perfect performance of the equipment under load. The FGE has approached this problem by educating employees in proper methods of inspection, servicing, operation, and maintenance.

Facilities for repair and fueling have been located strategically along the lines of railroads with which FGE, WFE, and BRE have contracts. At these stations repair parts are available and experienced personnel inspect, service and condition the mechanical cars. In event of difficulty under load the same qualified men make repairs or take other action for the protection of the lading.

Mechanical cars in the FGE-WFE-BRE fleet are refueled to capacity and closely inspected prior to each loading to be certain of the proper functioning of all components. Equipment operation and car temperature are checked en route under load at about 24-hour intervals at terminals or icing stations. The cars are also inspected once daily at destination when held over for unloading.

Car Location Always Known

When mechanical cars move over FGE-WFE-BRE contract lines, not only are qualified men available for servicing, but the car location is known at all times; return loading can be arranged, or the cars moved into loading territory to meet shippers' requirements, thereby securing the maximum use of the cars.

Asked what happens when these cars travel over non-contract lines where trained personnel cannot supervise their operation, Mr. Nelson said:

"First of all, the mechanically refrigerated car furnishes dependable refrigeration; our experience has shown that by far the greatest percentage of loads have no mechanical difficulty in transit but in the event something does go wrong with the equipment it is usually quickly and easily corrected.

"Second, we have made arrangements with the railroads over which these cars are generally routed whereby we have given them all of the necessary information and in some instances have provided the basic training in the care of these cars; they also become competent through experience in handling the equipment.

"Third, other car lines and railroads are entering this field and while their refrigeration equipment may not be identical to ours, their trained and qualified personnel can and do adequately service our mechanical cars, as we do theirs when on our contract lines."

Future Looks Promising

Mechanical refrigerator cars are still subject to research, development and improvement, but are far beyond the initial test stage. The FGE-WFE-BRE fleet has been in service an average of less than two years, so definite figures on maintenance cost, overhaul periods and depreciation rates are not yet available.

Mr. Nelson said that the many known favorable factors should encourage rapidly increasing use of mechanical cars in this country, dependent to a considerable extent upon shipper cooperation in getting full availability and use out of this expensive new equipment.

Benchmarks and Yardsticks

YOUR REPORTER CONFESSES with great regret that, when the so-called "Project Adequate Roads" program began to be ballyhooed a couple of years ago, he did not take the thing seriously. The proposal was and is preposterous, on the very face of it. But it is winning, just the same.

There was already in progress a colossal highway-building program. Toll-roads had already proved their attractiveness to traffic, and hence to investors. It has been frequently said, and truly, that "you [meaning motorists] pay for good roads whether you have them or not"; and the rapid gain in motor vehicle registrations gave no indication that road users were slackening their demand for roads, or were unwilling to pay for them.

Why, then, all the excitement about "adequate roads"? There wasn't any parallel publicity about "adequate televisions" or "adequate deep-freezes" or "adequate electric washing machines." The American people wanted more of these things, just as they wanted more highways, but the provision of all these other desirable things was left to the old reliable forces of supply and demand.

Why was "adequate highways" a special case? Hindsight answers the question where foresight (in your reporter's case, at least) failed to do so. The "adequate roads" hullabaloo was initiated precisely because the free market was just on the verge of demonstrating its ability to take over and handle the country's highway problem, thus relieving the taxpayers of any burden or responsibility in that area. If major highway systems should become directly self-sustaining, that would let the taxpayer off the hook; and whoever heard of taking any burdens off of that fellow?

When there was one automobile per 100 families and no long-haul trucks, there clearly had to be some socialized financing of improved highways (i.e., financing them coercively by taxation, rather than by voluntary investment, looking for a "fair return"). Now, with the use of motor vehicles virtually as widespread as the use of clothing, it is no more necessary to continue socialized financing of highways than it is to socialize the financing of clothing stores.

There could be no greater victory for free enterprise than to have an economic activity, highly socialized like this one, turned back to private enterprise. And free enterprise was just about to take over, too—when along came this "Project Adequate Roads," and socialism pushed free enterprise into the background again.

Realism requires recognition by railroad people of the fact that they are almost the only non-socialists left—at least in the business community. This is an honorable position to be in. It is a lonely one, too. J. G. L.

A NEW "COMMUNITY COMMITTEE" got under way as officers of Pittsburgh's six major railroads met on September 17 to organize a group whose objective will be to prove that railroads are "good citizens and good neighbors." John F. Nash (standing), vice-president of the Pittsburgh & Lake Erie, was elected permanent chairman.

EASTERN RAILROADS DEVELOP . . .

"Grass Roots" Public Relations

"Community committees," in 16 areas, are helping to create understanding and to develop sympathetic public opinion

A little more than a year ago, David I. Mackie, chairman of the Eastern Railroad Presidents Conference, sent a letter to several railroad presidents. It read in part:

"You will remember that two of the phases of the ERPC public relations program, which were approved at the last meeting of the conference on June 18, were the organization of committees of railroad personnel at the community level, and the strengthening of our speakers' bureau program. . . .

"As a first step in setting up these community committees and the speakers' training program, will you please designate two officials in each of the areas named below [Boston, Buffalo, Columbus, and Indianapolis] which are served by your railroad, to represent your road at organizing committee meetings."

Mr. Mackie's letters were dated August 6, 1953. In the following two weeks, 14 railroads named their representatives, the representatives were informed of meeting times and dates and places, meetings were held in each of the four cities—and the most ambitious "grass-roots" public relations program in U.S. railroad history was transformed from an idea into an activity.

The ERPC program in less than 15 months has:

- Established active committees of railroad people in 16 important Eastern communities;
- Enlisted in community-committee activities 579 railroad men (from firemen to vice-presidents) from 28 Class I railroads and seven short lines;
- Intensively trained 183 railroaders as public speakers, and started the training of 140 more;
- Acquainted all participants in the program with today's "railroad story"—with the relevant facts about railroad overregulation, about government favoritism to competitors, and about the opportunities which can be realized by modern-minded railroad thinking;
- Initiated participation by industry-wide local rail-

RAILROADS WORK TOGETHER to improve their public relations. Here, for example, Erie President Paul W. Johnston (left) presents to E. J. Leenhouts, manager of stockyards and agricultural development of the New York Central, a certificate attesting that Mr. Leenhouts "graduated" from a course given to Rochester, N. Y., committee members by the University of Rochester. Mr. Leenhouts is chairman of the Rochester group, and Mr. Johnston spoke at its "graduation."

road organizations in Community Chest, Red Cross March of Dimes and similar drives, and greatly intensified participation by individual railroaders;

- Helped train Boy Scouts for their new merit badge in railroading;
- Placed railroad exhibits in four state and county fairs;
- Originated, at Buffalo, a "Railroad Week" program in which presidents of many Eastern roads are scheduled to take part;
- Arranged carefully planned tours of local railroad facilities for more than 1,500 business and civic leaders and public officials;
- Sent informed railroad speakers to 340 business, service and civic groups, an activity which alone has carried "the railroad story" to an estimated 15,000 local leaders;
- Produced approximately 16,000 newspaper stories about the Eastern rails' interest in communities they serve, and problems confronting railroads; and
- Resulted in scores of favorable references to railroads on radio, television, and in newspaper editorials.

The ERPC program is aimed frankly at betterment of the railroads' competitive position. But instead of preaching in large words—and empty halls—about inequities from which railroads suffer, its sponsors are concentrating on creation of an understanding and sympathetic public opinion at the grass-roots level.

"In a democracy, government action is the product of the decisions of individuals," J. Carroll Bateman, assistant chairman of the ERPC and an active leader in the new program, says. "The same public which buys—or refuses to buy—our freight and passenger services, also elects the officials who make and enforce our laws. The railroads have been discriminated against, not because Americans are anti-railroad or pro-truck or stupid, but because Americans have been uninformed. It is our job to inform them—that we are good neighbors and heavy taxpayers that we are not monopolists, and no longer need to be regulated as such—that we cannot compete against government discrimination. If we do that job and do it well, remedial legislation will follow as a matter of course."

The ERPC program is laying the necessary foundation by developing—and dramatizing—good neighborliness among railroad people. In Massachusetts, the Railroad Community Committee of Greater Boston this year donated the first trophies ever offered for the best performances in Boston's 90-year-old annual schoolboy drill-team parade. In Columbus, the Railroad Community Committee spearheaded a Community Chest drive which last year helped the railroad industry meet its chest quota for the first time and become the first industrial group to go over the top. The Railroad Community Relations Committee of the Rochester (N.Y.) area is helping to publicize a city development plan that gathered cobwebs for years because the public was unfamiliar with it.

In Indiana, railroad community committeemen discovered that a pet "gripe" of many farmers was the railroad practice of burning old ties; the ties, the farmers felt, had too many uses around farms to be unceremoniously sent up in smoke. The Tri-State Railroad Community Committee, headquartered in Fort Wayne, is now arranging for Indiana railroads to give old ties to Indiana farmers.

The new ERPC-sponsored committees are sowing the seeds of enlightenment as well as of goodwill. At September's Indiana State Fair, more than 132,000 Midwesterners visited a railroad exhibit. A more detailed report of this exhibit will appear soon in *Railway Age*.

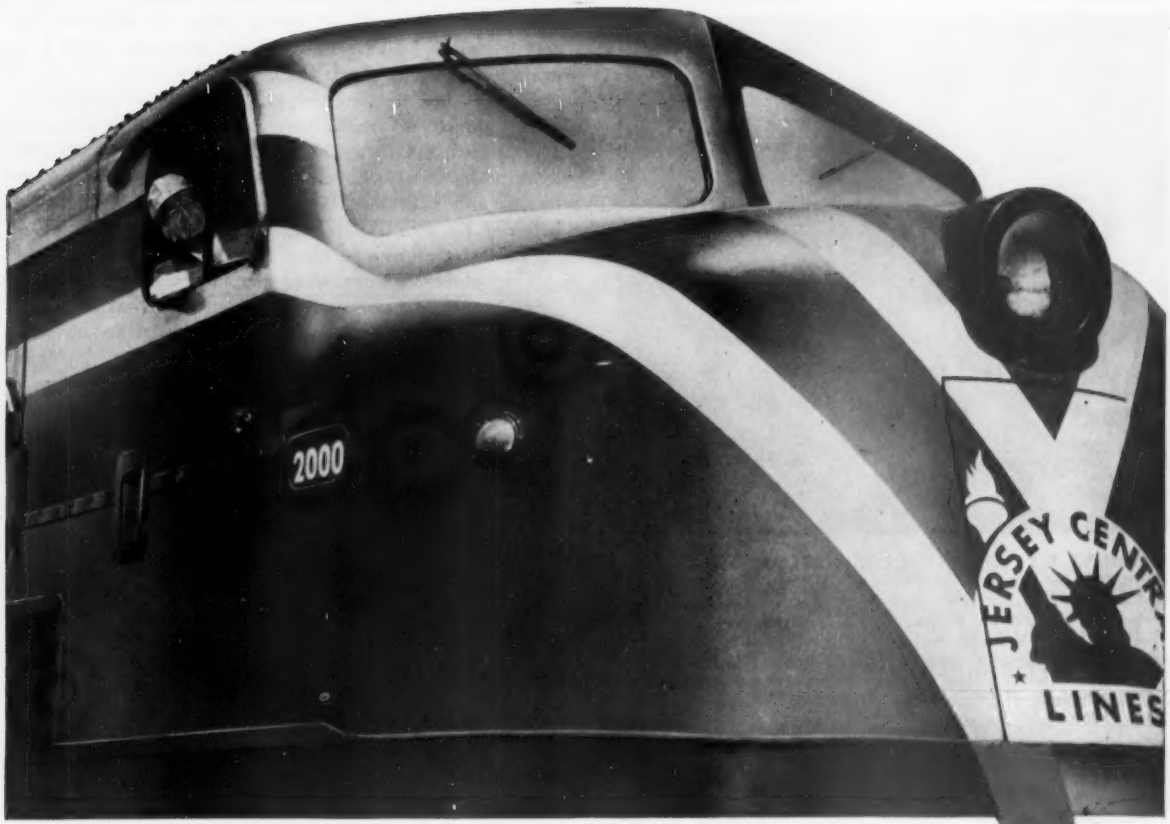
The A-B-E Railroad Community Committee—Allentown, Bethlehem and Easton, Pa.—has completed plans with Allentown's board of education for a Railroad Education Week in public schools. In Buffalo, railroad men trained by the Niagara Frontier Railroads Committee on Community Relations are reported to have delivered more public speeches in one six-week period than had representatives of all 10 cooperating railroads in the previous five years.

Community committee activities, as this random sampling suggests, are diversified, and tailored to local conditions and needs. Within the flexible pattern of the ERPC's overall plan, each committee is practically autonomous. Each even adopts its own name, which explains the striking diversity of committee identifications.

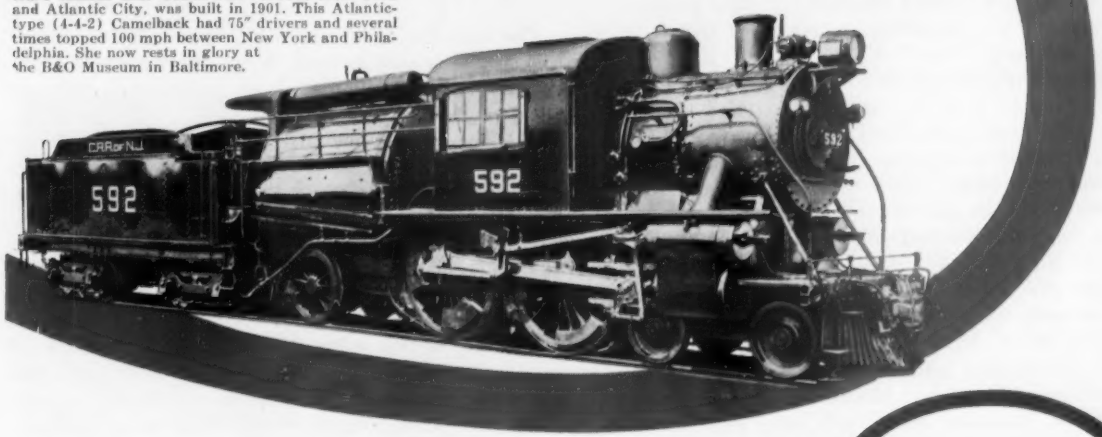
The community committee program developed from a research assignment. Early in 1953, the ERPC office and its public relations counsel were asked to study the Eastern public's attitudes toward railroads and, based on their findings, to recommend a coordinated public relations program. Among recommendations embodied in the ERPC study was one for eventual formation of what were then called "county committees."

The study was submitted to the ERPC's Committee on Public Relations, which reported on it to Eastern pres-

(*Continued on page 68*)



"Old 592," distinguished veteran of Jersey Central's famous Blue Comet run between New York and Atlantic City, was built in 1901. This Atlantic-type (4-4-2) Camelback had 75" drivers and several times topped 100 mph between New York and Philadelphia. She now rests in glory at the B&O Museum in Baltimore.



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PAYMENT OF SPRING TAX INSTALLMENTS of nearly $200,000 by three railroads serving Fort Wayne was coordinated by that city's community committee. Committee members George W. Miller, district freight agent, Wabash (left); H. H. Vaughn, superintendent, Pennsylvania, and committee chairman (center), and Charles H. Lee, superintendent, Nickel Plate (right), simultaneously presented their companies' tax checks to county Treasurer Willis Hite (seated).

idents, saying "There are vast, untapped opportunities to improve public relations of Eastern railroads on a joint basis—filling the gap between AAR activities on the national level, and public relations programs of individual railroads." After approving the study group's program "in substance," the committee recommended that it be extended and begun immediately.

The Eastern presidents approved their public relations group's report on June 18, 1953. By the third week in August, "pilot" committees had been organized in Boston, Buffalo, Columbus and Indianapolis. Both speaker-training courses and contact work with other organizations were started, and by mid-October all four pilot committees had completed the first phase of their activities. On November 20, the Eastern presidents reviewed the pilot operations and voted to extend the program into five new areas early in 1954, and into additional new areas during the second half of this year.

ERPC community committees in the second group were established in Albany, Allentown-Bethlehem-Easton, Fort Wayne, Rochester and Toledo some eight months ago. The third group—in Baltimore, Cincinnati, Cleveland, Detroit, Newark, Pittsburgh, and Springfield, Mass.—are now beginning to function.

Before the first committees were organized, a speakers' training program was developed in cooperation with Dr. Robert A. Love, executive secretary of the Association of University Evening Colleges. Decision was reached to use existing university facilities, and ERPC committees have therefore been established only in communities where a university can provide evening courses (Ohio State in Columbus, Penn State in Allentown, Johns-Hopkins in Baltimore, etc.).

The courses are taught by university professors or instructors. With a few exceptions, they are limited to 20 trainees each. They encompass 36 hours of instruction spread out—although not evenly—over 16 sessions. The cost per course, like all other basic expenses of the program, is borne by the ERPC.

Courses are not limited to public-speaking training. Their objectives are to give railroad people authentic and up-to-date information about the railroad situation; to acquaint them with the importance of community relations and with the ways community relations can be bettered by effective public speeches; and to improve speaking techniques of class members.

The courses are organized around six major subjects: "Importance of Community Relations," "What Railroads Mean to America," "Government Regulation of Railroads," "Competition in the Transportation Industry," "Railroad Money: Where It Comes From, Where It Goes," and "Railroad Research and Technical Progress."

During early sessions, an important railroad leader addresses the class on each subject. After the six informational sessions, trainees apply what they are learning. They prepare and deliver first two-minute, and then longer, speeches which are reviewed and criticized by the instructor and by fellow trainees. Speeches are sometimes tape-recorded and played back, so trainees can recognize and correct their own errors.

To fortify classroom instruction—and serve as the basis for "homework"—a "kit" of carefully selected reference material on each of the six major subjects is furnished to each trainee. Each kit includes a pattern speech, and five or six important articles or studies in that field. Much of the material bears the imprint of the AAR or the ERPC.

How a Committee Is Organized

The organization of an ERPC community committee has now been standardized. With only occasional slight variations due to differing local condition, it proceeds along the following lines:

(1) The ERPC Committee on Public Relations selects the site. Importance of the community, number of railroads serving the area, and availability of university facilities have been determining factors.

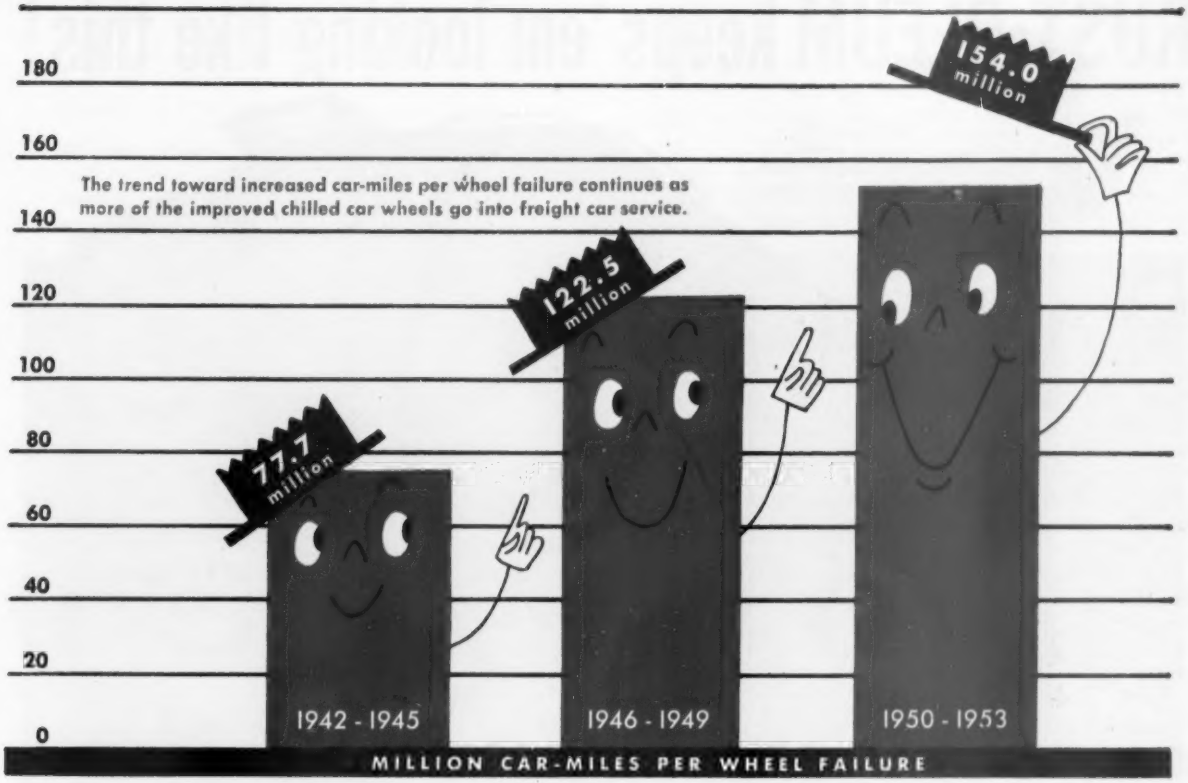
(2) A field man checks the local university for available dates, classroom space, etc.

(3) The ERPC office sets the time and place of an organizing meeting.

(4) Mr. Mackie writes the president of each railroad serving the community, requesting him to name two officers to represent his road at the organizing meeting.

(5) The organizing meeting is held under guidance of Mr. Bateman. In addition to two officers from each participating road, the meeting is attended by the field man assigned to that committee. (At the ERPC's expense, each committee, whether new or old, is furnished the full-time or part-time services of a field man familiar with local conditions.) The overall program is explained, and adjusted to local conditions. Railroad officers present are then asked to name four or five representatives of each road, including themselves whenever possible, to serve on the community committee itself; every effort is made to get varied representation from different departments, and to include the top railroad officers in each locality. They also are asked to prepare, for the next meeting, a list of names of possible speakers' course

(*Continued on page 71*)



Another safety performance record for AMCCW Chilled car wheels!

The AMCCW chilled car wheel that established a new high in safety performance in 1953. This design adopted by the AAR in 1950 puts more brackets, thicker, heavier, more continuous flange support and heavier tread into the AMCCW chilled car wheel.

The bar chart tells a story of continuous improvement in the performance of chilled car wheels over the past dozen years. Figures are based on ICC records of car-miles per wheel failure.

1942-1945	**77,700,000 car-miles**
1946-1949	**122,500,000 car-miles**
1950-1953	**154,000,000 car-miles**

What this grouping of records into four-year periods does not show is that the year 1953 was 50% better than any other year since records have been kept, a product performance story that is the more remarkable in view of the increased speeds and increased loadings in modern freight service.

Matter of fact, the whole story is even better. When derailments caused by loose wheels and worn flanges are taken into consideration, **the AMCCW chilled car wheel has the best safety record of any type of wheel in freight car service.**

The record for the freight cars you now equip with new AMCCW chilled car wheels could readily exceed the safety performance illustrated above, because the graphs are based on average performance of old type as well as new improved chilled car wheels.

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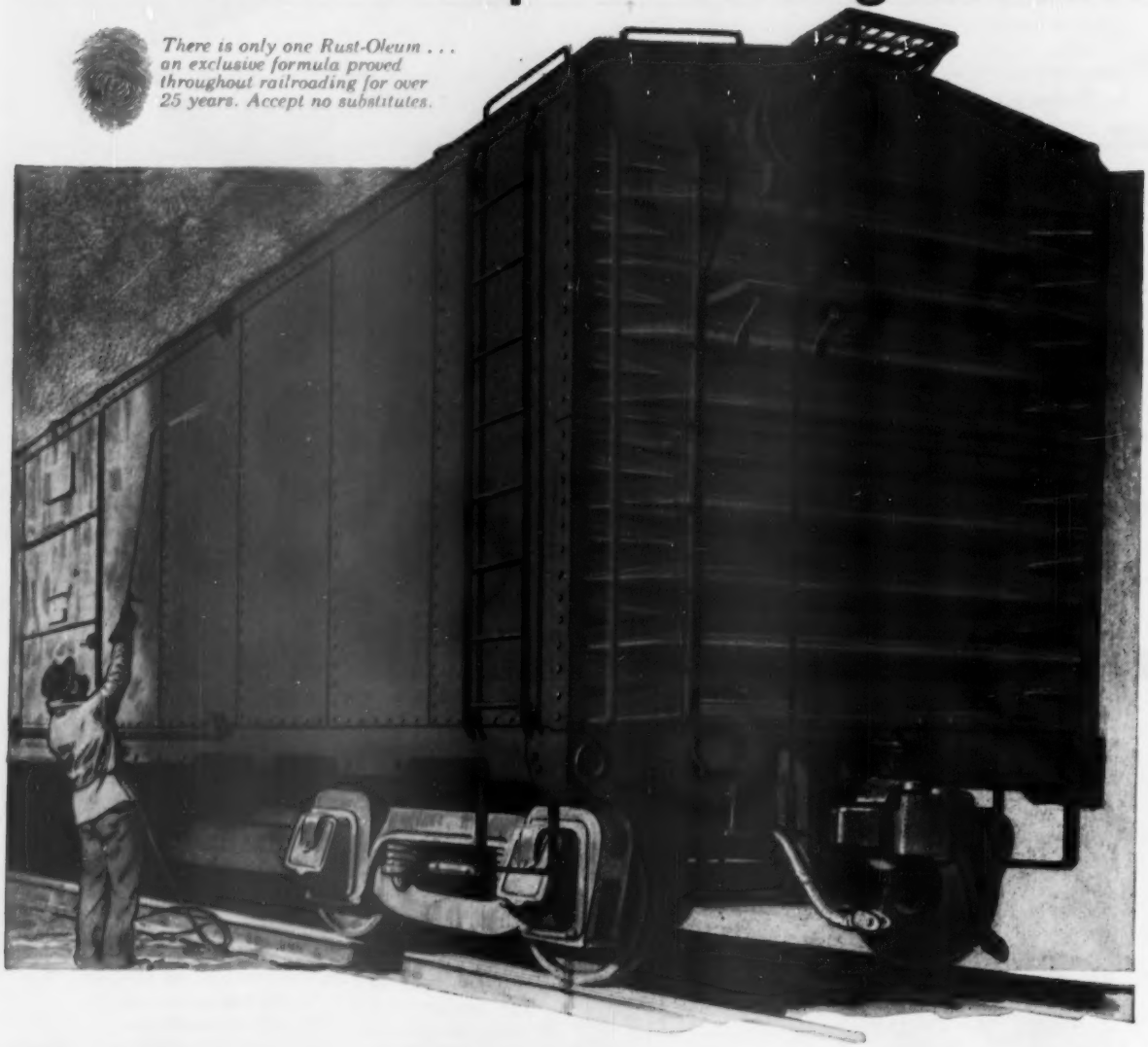

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"GRASS ROOTS" PUBLIC RELATIONS

(*Continued from page 68*)

trainees (community committee members may or may not, as they elect, themselves enroll in the speakers' training course). A time and place for a second meeting are agreed upon, and a temporary chairman is selected.

(6) At the second meeting, the committee's membership is finalized; the committee is named; a permanent chairman, vice-chairman and secretary are chosen; the starting date of the training course is agreed upon, and 20 speaker-trainees are selected. An announcement of the committee's formation is prepared for the local press.

(7) At the second meeting or later, the committee is divided into subcommittees. These vary with local needs, but typically are: Civic, Business and Industry, Agriculture, Youth, Speakers' Bureau and Press Relations.

From then on, the new railroad organization begins to weave its way into the fabric of community life. The speakers' training classes are held, usually once a week in the evening. The Civic Subcommittee cooperates in local drives and improvement campaigns. The Business and Industry Subcommittee works with the chamber of commerce and other existing groups in improving industry relations in general and railroad community relations in particular. The Agriculture Subcommittee meets and discusses mutual problems with local farm leaders. The Youth Subcommittee counsels Boy Scouts and railroad enthusiasts clubs, arranges tours for school children, etc. The Speakers' Bureau schedules appearances of the newly trained speakers before organized groups. The Press Relations Subcommittee publicizes the work.

Upon completion of the speakers' training course, a "graduation dinner" is held, at which a railroad president is the speaker, and to which presidents of all participating railroads are invited.

During formative stages of the ERPC program, an important railroad executive prophesied: "This idea won't click until a railroad man gets promoted because of his community committee activity—and that will take three years." The executive was wrong in his estimate by 26 months. One of the trainees in the second group of community committees was an urban ticket agent who ranked fourth in his department in seniority. He did so well in the speakers' training course that he was elected toastmaster for the graduation dinner. He did so well at the dinner that his railroad's president, impressed by the eloquence and wit of an unknown ticket agent, made a note of the young man's name. A few weeks later, the senior agent reached the retirement age. The fourth-ranking community committee speaker was jumped over two men and given the senior job.

"Our program's already been worth $165 a month to me," the young agent reports.

This story illustrates an accomplishment of the ERPC program which is often overlooked. Above and beyond improved community relations, with their immediate and greater future dividends for railroads, community committee activities make better railroaders of railroad men. By teaching trainees how to speak and then giving them the opportunity to prove themselves before real audiences, the speakers' program develops poise. By informing railroad people regarding their own industry, the literature and group discussions develop self-confidence. Through contact work with other organizations, committee members become better salesmen. Overall, the program inculcates pride in working for the railroads.

ERPC committee activities also teach railroad men the value—and give them the opportunity—of cooperating with each other. Railroad people from different lines who often had never met, now work together regularly. In Indianapolis, the Illinois Central requested and was granted permission to be represented on the Railroad Community Committee, although the IC is not a member of the ERPC.

The ERPC Community Committee program has been described as "putting money in the bank of public opinion" and as "making useful friends by being useful and friendly." It also might be described as an attempt to apply the Golden Rule to Twentieth century industrial life. Before the first committee was formed, Mr. Mackie said:

"The program's primary objective is to put to work in the railroad industry's behalf a powerful principle: the principle that we grow through giving—that fulfilling industry obligations at the local level, where public opinion is formed, can bring the industry the understanding and support it deserves and eventually create a climate favorable to essential transportation policy reform."

That statement still describes the goal toward which the ERP program is moving.

WHO'S PARTICIPATING—WHERE

"Community committees" organized to date, or now being organized, under ERPC auspices, and railroad participating in each, are as follows:

***Boston, Mass.*—Boston & Maine; New Haven; New York Central.**

***Buffalo, N. Y.*—Baltimore & Ohio; Canadian National (Grand Trunk); Chesapeake & Ohio; Erie; Lackawanna; Lehigh Valley; NYC; Nickel Plate; Pennsylvania; Wabash.**

***Columbus, Ohio*—B&O; C&O; NYC; Norfolk & Western; PRR.**

***Indianapolis, Ind.*—B&O; Indianapolis Union; Monon; NYC; NKP; PRR; IC.**

***Albany, N. Y.*—Albany Port District; B&M; Delaware & Hudson; NYC.**

***Allentown-Bethlehem-Easton, Pa.*—Jersey Central; Lehigh & Hudson River; Lehigh & New England; LV; Reading.**

***Fort Wayne, Ind.*—B&O; Erie; Fort Wayne Union; Lake Erie & Fort Wayne; NYC; NKP; PRR; Wabash.**

***Rochester, N. Y.*—B&O; Erie; LV; NYC; PRR.**

***Toledo, Ohio*—B&O; C&O; Detroit, Toledo & Ironton; Detroit & Toledo Shore Line; NYC; NKP; PRR; Toledo Terminal; Wabash.**

***Baltimore, Md.*—B&O; PRR; Western Maryland.**

***Cleveland, Ohio*—B&O; Erie; NYC; NKP; PRR.**

***Cincinnati, Ohio*—B&O; C&O; Erie; NYC; N&W; PkR.**

***Detroit, Mich.*—B&O; CNR (GTW); Canadian Pacific; C&O; Detroit Terminal; DT&I; D&TSL; NYC; PRR; Wabash.**

***Newark, N. J.*—Erie; Jersey Central; Lackawanna; LV; NYC; New York, Susquehanna & Western; PRR.**

***Pittsburgh, Pa.*—B&O; Bessemer & Lake Erie; NYC; PRR; Pittsburgh & West Virginia; Union.**

***Springfield, Mass.*—B&M; Central Vermont; NH; NYC.**

VAST EXPANSE of yards, which cover some 800 acres, is shown by this aerial view, looking north. In foreground is portion of receiving yard; south end of departure yard is in distance. At right: servicing and storage yards.

NASHVILLE'S RADNOR YARDS

New $15-Million Joint Terminal . . .

• Speeds Freight Movements
• Effects Large Economies

Automatic interchange of cars, expedited handling of all traffic, numerous operating economies, and the release of valuable downtown property for industrial development are all results of a merger of freight terminal operations of the Louisville & Nashville and the Nashville, Chattanooga & St. Louis at Nashville, Tenn. The two roads have consolidated classification and make-up of all trains at that point in the new $15-million Radnor yards.

The extensive five-mile-long joint terminal facility features a 1-2-3 sequence of receiving, hump-retarder classification and departure yards designed to handle 3,000 cars per day during peak operations.

The immense new yard, comprising 91 tracks with a total capacity of 7,400 cars, is situated southeast of Nashville, at the south end of a double-track by-pass which skirts the city on the east. The by-pass, known as the Radnor cutoff (see map), was placed in service following World War I and carries all L&N through freight traffic between Louisville-Evansville to the north and Birmingham to the south. The cutoff, before construction of the new yard, connected to the double main track near what is now the north end of the new receiving yard.

The NC&StL main line between Memphis and Chattanooga crosses under the Radnor cut-off a short distance north of the new yard. These NC&StL tracks join with the L&N's main line at South Nashville, and the two roads use joint tracks into the Union Station and to a point west of downtown Nashville where they again separate, the L&N tracks going north to a junction with the north end of the Radnor cutoff, and the NC&StL tracks going west to Memphis.

Formerly Two Yards

Prior to the construction of the new Radnor facilities, freight-train classification and make-up was handled in two widely separated yards. Most L&N trains were handled in the old Radnor yard, part of which has been converted into mechanical servicing and storage yards on the east side of the new classification yard. NC&StL trains, as well as some L&N trains, were classified and made up in the Kayne Avenue yards near the Union Station in downtown Nashville.

Each of these old yards was operated with two humps employing manually operated switches and car riders. For classifying cars each hump required 10 ground crewmen, including car riders, per shift, three shifts per day.

Seven men were also required on each shift as "herders" to line switches during classification.

Under the old system, interchange of cars between the two roads required some 18 hours on the average.

A switching crew was also required on each shift to handle the transfer of interchange cars between the two yards.

Old Yards Were Inadequate

Another handicap experienced with the advent of dieselization and the resulting longer trains was the lack of tracks of sufficient length to handle make-up of trains. Officers report that it was sometimes necessary to double-over onto three tracks in order to make up a train in the old yards. On some occasions trains even had to be made up on the main line.

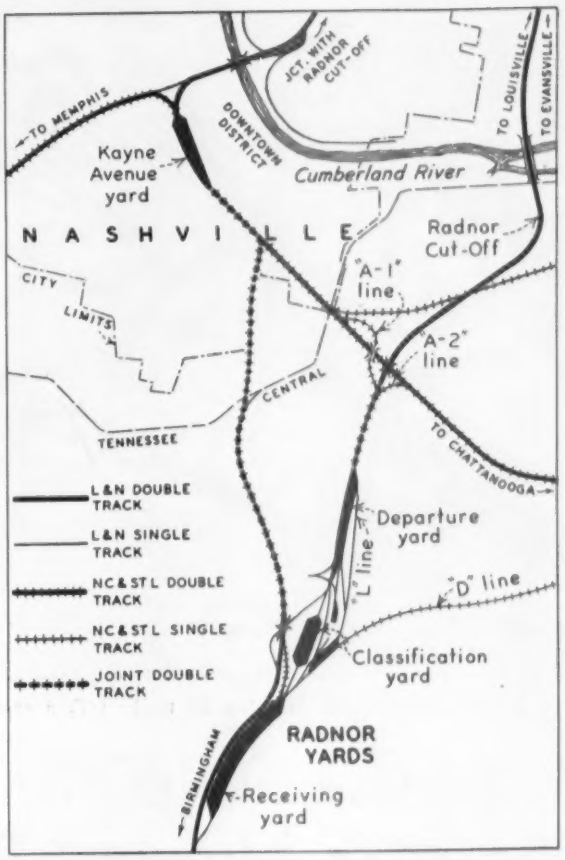
Because of its location, as well as from an operating standpoint, the Kayne Avenue yard was a costly installation. The yard, being situated in the heart of Nashville, occupied a great deal of valuable property which could be utilized for industrial development. Taxes were quite high, and very little income of a direct nature was being realized from the property to offset these taxes.

In consolidating yard operations at Radnor, construction of the new yards was only a part of the project. Access lines for the NC&StL also had to be provided, as well as various inbound and outbound connection tracks for the L&N. The map shows how these various inbound and outbound routes are situated.

Cars Interchanged in Classification

Both L&N and NC&StL trains are given the same type of handling in the yard. There is no real separation of the yard tracks between the two roads. Trains are handled more or less as if only one road with lines in four different directions were operating into and out of the yard. Interchange cars between the two roads are handled just as other cars to various destinations are handled in classification. Classification tracks are designated for particular destinations or blocks, and cars coming over the hump are routed to those specific tracks. Officers point out that a reduction of 8 to 12 hours has been effected in handling interchange cars between the two roads. In addition, considerable cost savings are being realized in this regard with the elimination of the double handling of interchange cars formerly required under the old two-yard operation. Handling of transfers between the two yards has also been eliminated.

Details of the design and construction of the new yards, and of their auxiliary facilities, are given on following pages.



NEW YARDS, serving both roads, are southeast of city.

HOW TRAINS MOVE IN AND OUT OF TERMINAL

There are four main routes carrying traffic into the receiving yard. L&N northbound trains head in off the main line on a running track (extreme bottom of map) connecting with the south end of the receiving yard. L&N southbound trains approach the north end of the yard area over the Radnor cutoff.

The double-track cutoff is operated with reverse traffic (left-handed) so that southbound trains operate on the east track. This permits trains approaching the north end of the facility to bypass the departure and classification yards over a line skirting the yard area on the east. This line is known as the "L" line. It connects with the north end of the receiving yard and provides entrance to the yard for southbound trains.

NC&StL westbound trains are routed into the receiving yard over completely new line, called the "D" line, which joins the NC&StL main line about four miles east of the yard and connects with the receiving yard at the north end. Eastbound NC&StL trains use the L&N main line from the junction of the two lines at South Nashville to a point near Radnor where these trains are routed into the north end of the receiving yard from the west over a connecting track.

For departing trains there are two main routes. Southbound L&N trains are headed south out of the departure yard onto a track which carries them west of the yard to a connection with the southbound main line. North, east and westbound trains head north out of the departure yard onto the Radnor cutoff. L&N northbound trains continue over the cutoff to junction with the main line. NC&StL trains run over the cutoff for a short distance to connecting lines A-1 and A-2 which join with the NC&StL eastbound and westbound main lines, respectively.

With this apparently complicated but smoothly operating system of inbound and outbound connections with the two main lines, both NC&StL and L&N trains can be arriving and departing from all four directions at practically the same time. There is no interference between movements or with the operations in the yards.

CLASSIFICATION yard comprises 56 tracks with a capacity of 3,275 cars. Tracks are divided into seven groups.

NASHVILLE'S RADNOR YARDS

South's Newest Retarder Layout

Five-mile-long, 800-acre freight terminal includes three major yards in a straight-line sequence incorporating the latest in communications and signal equipment

After more than 2½ years of some of the most difficult and extensive yard construction work in recent years, the Louisville & Nashville and its affiliate, the Nashville, Chattanooga & St. Louis, have completed their new $15 million Radnor yards at Nashville, Tenn. Carved almost entirely out of the solid rock of rough and rolling terrain southeast of Nashville, the new facility required the movement of nearly 3 million cu yd of material preparatory to the construction of tracks and buildings.

Included in the new installation are a 13-track receiving yard, a 56-track hump-retarder classification yard and a 22-track departure yard, all of which are equipped with the latest facilities for expediting the movement of trains through the Nashville terminal. In addition to the three train-handling yards, the terminal includes a mechanical servicing yard with car-repair tracks, engine-service tracks and a new diesel house, facilities for icing refrigerator cars, livestock pens, storage yards and a variety of yard towers and buildings. Because of its tremendous size, the terminal has many public road crossings, requiring the construction of several new grade-separation structures and the extension of several existing ones. The building of 3½ miles of paved public roads in addition to 5 miles of paved private roads in the yard area was included in the yard construction project.

Yards in 1-2-3 Sequence

The train-handling yards are laid out in a 1-2-3 sequence with the receiving yard at the southerly end. This yard is rated at 1,780 cars capacity and will accommodate a train of up to 166 cars on its longest track. Because of location problems, there is a short curve at about the center of the yard. Three of the 13 tracks are divided into three pockets each by crossovers, thus permitting several short-length trains to be handled without tying up the longer tracks.

Trains entering the receiving yard from the south are ordered into a particular track—or in the case of short trains into a specific track "pocket"—by a track-indicator board at the south entrance to the yard. Trains coming into the yard from the north (including south, east and westbound trains) are routed into the receiving yard by a "herder" who lines up switches to a particular track on instructions from the yardmaster.

Car checkers in buildings at the north and south ends of the receiving yard record the arrival of each train as it passes on its way into the yard. The checkers use Soundscribers, the records from which are transmitted for processing to the yard office in pneumatic tubes. All of the car inspecting at the terminal is performed by inspectors using walkie-talkie sets while trains are in the receiving yard awaiting transfer to the hump for classification.

The receiving yard is crowned in the center with a descending grade of about 0.3 per cent to the north, which continues on the lead to the hump from the north end of the receiving yard. The grade then levels off for some distance before the hump ascent which is 1.24 per cent for a short distance, then increases to 3 per cent up to the hump crest. The descending grade out of the receiving yard enables a 1,200-hp switch engine to push a train of 7,500 tons over the hump without difficulty. When it is necessary to pull a cut back from the hump, a trimmer engine is sometimes required to assist the hump engine in moving the cars back to the south.

Trains of cars are pushed up the hump over a dragging-equipment detector to the crest, whence they descend on a 3 per cent grade over a 92-ft Fairbanks-Morse knife-edge scale, and then for short distances on gradually decreasing grades until reaching a 0.2 per cent grade in the main body of the 3,275-car classification yard.

The classification tracks are divided into 7 groups of 8 tracks each. Retardation into these tracks is performed in three stages. First is the master retarder on the main hump lead; next there are three intermediate retarders, one on each of the secondary leads; and last come the final retarders, one on the lead to each track group.

Two Control Towers

Retardation as well as automatic switching to the various classification tracks is performed by operators in two towers, one on each side of the classification yard opposite the intermediate retarder group.

In the east tower, called Tower "A," the operator not only controls the retarders for the intermediate and final stages on the 16 easterly tracks, but also has charge of the push-button panel for initiating the automatic switching controls to route cars to each of the classification tracks. For example, to initiate the switch controls for a car to go to Track 25, he pushes Button 25. The control equipment will "store" three track lineups in addition to the one in use by a car or cut of cars.

The operator in Tower B, on the opposite side of the yard lead, controls the master retarder as well as the intermediate and final retarders on Tracks 17 to 56 inclusive. The retarders and power switch machines are of the electropneumatic type.

This equipment as well as the control machines, hump signals, cab signals and dragging-equipment detector were furnished by the Union Switch & Signal Division of Westinghouse Air Brake Company.

Humping operations are directed by the hump foreman whose office is in a concrete block building at the crest of the hump. From his desk the foreman is able to establish connections for direct-calling two-way conversations with the yard office and retarder operators. In

Receiving . . .

NERVE CENTER of yard operations is the main yard office building at crest of hump.

INBOUND yardmaster, in tower of yard office, handles receiving yard and hump end of classification yard.

TELEPRINTERS are used to record and transmit waybill information, as well as for making up train consists.

CARS DESCEND on a 3 per cent grade into classification yard. Hump foreman's office is at right.

HUMP foreman controls humping signals, including cab signals in hump engines. He also maintains radio contact.

addition, contact with hump engines is maintained by two-way radio. The hump foreman also controls the hump signal at the crest, a repeater signal on the lead and cab signals in the hump engine, as well as trimmer signals in the classification yard. The signals can also be controlled by the pin puller when necessary.

For cars that cannot be humped, such as those carrying explosives, there is a "no-hump" track with connection to the hump lead at the base of the ascent. There is also another turnout a short distance farther south through which cars can be diverted to the icing platform, stock pens or mechanical yards along the east side of the classification yard.

Main Yard Office at Hump

At the crest of the hump, opposite the hump foreman's office, is a yard office building which is the nerve center for all Radnor operations. The building is of reinforced concrete and brick construction with a 40-ft by 80-ft ground floor surmounted by a 26-ft by 40-ft two-story tower.

On the ground floor most of the paper work involved in yard operations is performed. In one section of the lower floor are Teleprinters which are used to record and transmit all waybill information and to make up train consists. In this same room are pneumatic tube outlets connecting the office with the retarder towers, car checker houses, a yardmaster's office near the departure yard and the yardmaster's office in the tower above. A glassed-in bay on the hump-side of the ground floor accommodates electrical car-weighing and recording equipment for the scale.

The second floor of the yard office building comprises offices for the assistant terminal superintendent, trainmaster and clerks, while the third floor consists of a glassed-in enclosure containing the office of the yardmaster who supervises all operations in the receiving yard and the hump end of the classification yard. He sits at a communications console equipped with circuit controls for 20 talk-back speakers, 5 "intercom" stations and one radio system in addition to two automatic telephone circuits. The 20 talk-back speakers are located at intervals around the receiving yard and hump area and can be arranged into three groups for low-level paging when desired.

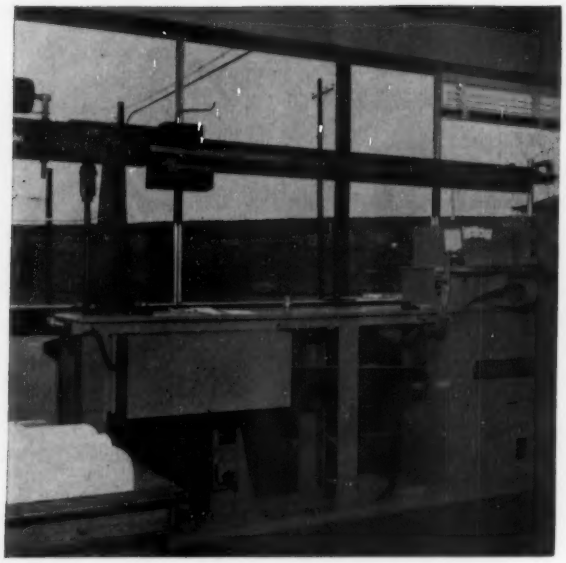
An information board in the yardmaster's office indicates the arrival of incoming trains when they are about a mile from the receiving yard. Remote control on this board enables the yardmaster to stop or admit trains into the receiving yard with "hold-out" signals on each of the incoming tracks. In addition he has a panel with which to control the track indicator board at the south end of the receiving yard.

Air for operation of the retarders and switches in the classification yard is supplied by compressors placed in a 65-ft by 20-ft concrete block building along the west side of the yard. In this building are two motor-operated units and one gasoline-powered compressor, the latter for emergency use. Also in the same building are a work room and office for personnel who maintain the retarders and switches, and a storeroom for oil.

At the north end of the classification yard there are five main leads connecting that yard with the departure yard. These leads are connected at several points by crossovers which enable switch engines to weave in and out over a multiplicity of routings between the two yards. The departure yard consists of 22 tracks with a capacity of 2,344 cars, and, like the receiving yard, is able to handle trains approximately 1½ miles long.

"Bowl" Office Controls North End

Operations in the north end of the classification yard, in the departure yard and in the area between the two are controlled from the "bowl" yard office which is situated on the east side of the leads connecting the two yards. This building is a three-story reinforced con-



CAR WEIGHTS are obtained "on-the-run" by this Fairbanks-Morse scale equipment in bay of yard office.

crete and brick structure similar to the main yard office and retarder towers. On the first floor paper work for all outgoing trains and city cuts is handled by yard clerks.

Also on the first floor is an operator who remotely controls all outbound movements to the north, east and westbound main lines and inbound movements from the north through power switches and interlocking signals. This north-end interlocking, as well as three other remotely controlled interlockings at junctions of Radnor yard connections to the L&N main lines were installed by railroad forces. Major items of equipment were furnished by General Railway Signal Company. The operator also has a console over which he can communicate by radio with engines working in the area, or converse over "intercom" and automatic telephone circuits with other offices.

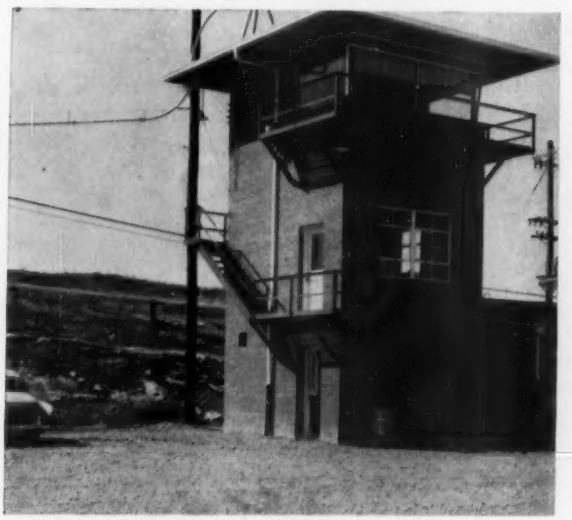
On the second floor is a room in which all of the communications equipment for the north-end facilities is housed. The top floor of the building is the bowl yardmaster's office, a glassed-in enclosure affording the yardmaster a panoramic view of the area under his supervision. From his desk in the tower the bowl yardmaster supervises all switching operations in the north end of the classification yard, the making up of departing trains in the departure yard and the handling of city deliveries and transfers to the Tennessee Central, the only other railroad in Nashville.

The "bowl" yardmaster's office is equipped with a communications console with 40 talk-back speaker circuits which can be arranged into seven groups for low-level paging throughout the classification and departure yard area. In addition there are 32 high-level paging speakers arranged in two groups, three "intercom" circuits, three radio circuits and two automatic telephone circuits connected to the console. The equipment in the paging and loudspeaker systems, including the control consoles and amplifier apparatus, was furnished by the Electronic Communication Equipment Company, Chicago.

Engines operating at the north end are equipped with radio which is also connected to the loudspeaker system though the console so ground crews can hear instructions to the engine crews. Supervisors in the classification-departure yard area use "Dick Tracy" hand transmitters over which they can give directions to engines over the radio and at the same time to ground forces over the loudspeaker system. A selector device on the "Dick Tracy" units calls in the "bowl" yardmaster, if the supervisor desires. This radio equipment, as well as that previously discussed, was supplied by Motorola.

The automatic telephones in this yard are included in a new railroad-owned private automatic exchange which is connected by long-distance trunks to other railroad-

Retarding & Classifying . . .



A CONTROL tower like this is located on each side of classification yard at hump end.

OPERATOR in one of towers controls switching and some retardation while other handles most of the retarding.

Makeup and Departure . . .

BOWL OFFICE alongside leads between classification and departure yards handles make-up and departure of trains.

YARDMASTER in bowl-office tower supervises operations, using radio, talkback and paging speakers, and telephone.

owned private automatic systems in L&N offices in nine other cities. This telephone equipment was made by the Automatic Electric Company.

Along the east side of the classification yard, on the site of a portion of the old Radnor yard, is a new car-repair facility. In this yard are five tracks spaced on 30-ft centers and served by concrete platforms in the inter-track spaces as well as adjacent to the outside tracks on either side. These platforms are 950 ft long and are equipped with overhead air, oxygen and acetylene lines.

On the east side of the repair yard two concrete-block buildings have been erected. One has space for storage of oil and waste, an air brake and pipe room, a tool room, a material stock room, a paint storage room, a welding shed and a foreman's office. The other building houses locker rooms for car-department employees.

Adjacent to the car-repair yard are new engine-servicing facilities, which include a diesel house, inspection tracks and "ready" tracks. The diesel house is attached at one end to the old roundhouse and accommodates four servicing tracks.

Outside the diesel house are two tracks with inspection pits and equipped with facilities for washing, sanding and fueling engines. Between these tracks and the car repair yard are four engine "ready" tracks where engines are held after servicing until called for an outgoing train.

Also on the east side of the classification yard and south of the mechanical facilities is a new icing platform

Auxiliary Facilities . . .

NEW DIESEL shop with four 4-unit tracks and elevated platforms handles light running repairs to locomotives.

SERVICING tracks are equipped with inspection pits and facilities for fueling, watering and sanding engines.

"DICK TRACY" hand transmitters are used by supervisors in bowl area to talk over paging speakers and radios.

of Fruit Growers' Express. The platform has a capacity of 36 cars, 18 on each side, and is equipped with a conveyor system which transports ice cakes from an unloading platform to the elevated platform. The icing facilities are situated on a run-around track between the receiving yard and the departure yard so that refrigerator cars can be routed around the hump. A 45-car track is provided for washing and cleaning reefer cars.

In addition to the buildings already described, numerous wash and locker buildings and small special-purpose strucures are situated at various points around the terminal area. The larger of these structures are of concrete block construction, while the smaller ones are Armco prefabricated metal buildings.

Lighting throughout the yard area is furnished by 13 floodlight towers located at strategic points. These towers are of structural steel, and though they vary somewhat in height because of the variation in terrain, the floodlights are all about 125 ft above track level. Lighting in all buildings is provided by fluorescent fixtures, except in the diesel house where mercury-vapor color-corrected lighting is used.

In preparing the 800 acres of land for construction of the new yard facilities nearly $3 million worth of earthmoving equipment was assembled at the scene by the joint grading contractors, Codell Construction Company, Winchester, Ky., and Oman Construction Company, Nashville. Included in this array of machinery were 6 power shovels, 3 draglines, 35 Euclid dump trucks (11 to 20 cu yd capacity), 40 rubber-tired Euclid, Caterpillar and La Plante-Choate scraper units, 45 pusher and dozer tractors, 30 wagon drills (later replaced by a Quarrymaster which drills a 6-in. hole at the rate of 35 ft per hr), 22 air compressors and 40 jack hammers, in addition to an assortment of trucks and small tools.

Construction of the buildings was covered by separate contract for each structure. Most of the units were erected by the J. B. Regen Construction Company, Nashville, and the Oman Construction Company.

The Radnor terminal was built under the general direction of L. L. Adams, chief engineer of the L&N, and under the direct supervision of A. Manson, division engineer and engineer in charge of construction on this project. Installation of signal and retarder equipment was carried out under the supervision of P. P. Ash, signal engineer of the L&N, and C. E. Pinkston, signal supervisor for the Nashville terminal. Communications equipment was installed under the supervision of H. W. Burwell, communications engineer, and S. B. Vickery, assistant communications engineer of the L&N. Nashville terminal operations are under the general supervision of A. James, Jr., terminal superintendent, and M. N. Perry, assistant terminal superintendent.

COMPRESSOR house contains three units which supply air for operation of retarders and electro-pneumatic switches.

CAR CHECKERS and switch "herders" use this two-story concrete block building at north end of receiving yard.

REVENUES AND EXPENSES OF RAILWAYS

(Dollar figures are stated in thousands; i.e., with last three digits omitted)

MONTH OF AUGUST AND EIGHT MONTHS OF CALENDAR YEAR 1954

Name of Road		Average mileage operated during period	Operating Revenues: Freight	Pass.	Total 1954	Total (inc. misc.) 1953	Operating Expenses: Maint. Way and Structures: Total 1954	Total 1953	Deprec. and Retirements	Maint. Equipment: Total 1954	Total 1953	Deprec. and Retirements	Traffic	Transportation	Total 1954	Total 1953	Operating ratio 1954	Operating ratio 1953	Net from railway operation	Railway tax accruals	New railway operating income 1954	New railway operating income 1953
Akron, Canton & Youngstown	Aug.	171	$372	....	$381	$585	$68	$66	$6	$62	$60	$14	$37	$130	$330	$355	86.6	60.7	$51	$19	$17	$94
	8 mos.	171	3,228	....	3,291	4,355	525	560	48	507	421	121	300	1,076	2,707	2,722	82.3	62.5	584	247	203	674
Atchison, Topeka & Santa Fe	Aug.	13,076	34,447	$4,763	43,510	50,516	7,508	7,735	706	8,172	9,296	1,937	1,086	14,703	33,711	36,267	77.5	71.8	9,799	3,959	5,170	5,989
	8 mos.	13,072	287,943	29,970	351,158	418,508	52,823	61,083	5,358	67,421	74,196	15,311	9,567	116,756	263,185	286,446	74.9	68.4	87,973	46,440	40,384	54,686
Atlanta & St. Andrews Bay	Aug.	82	310	1	316	319	26	37	3	21	20	5	6	69	139	150	43.9	47.0	177	83	63	48
	8 mos.	82	2,458	9	2,515	2,556	196	248	23	180	172	37	47	553	1,124	1,148	44.7	44.9	1,391	621	493	406
Atlanta & West Point	Aug.	93	205	34	290	364	37	65	5	54	61	13	14	134	260	310	89.8	85.1	30	19	—1	24
	8 mos.	93	1,855	278	2,516	2,969	344	433	50	431	540	97	121	1,107	2,174	2,504	86.4	84.3	342	162	60	152
Western of Alabama	Aug.	133	249	31	318	407	47	50	7	62	63	18	17	133	278	298	87.3	73.2	40	26	23	54
	8 mos.	133	2,224	267	2,771	3,151	414	450	64	504	546	134	137	1,057	2,279	2,454	82.2	77.9	492	198	301	331
Atlantic & Danville	Aug.	205	108	....	110	137	28	35	2	8	15	5	10	42	97	124	88.1	90.9	13	8	—15	—25
	8 mos.	205	1,039	....	1,053	1,305	236	278	15	88	120	39	92	364	865	999	82.2	76.5	188	69	—76	26
Atlantic Coast Line	Aug.	5,352	9,023	1,279	11,317	11,853	2,214	2,404	139	2,905	3,310	587	358	4,552	10,593	11,343	93.6	95.7	723	....	753	725
	8 mos.	5,360	82,437	12,845	104,160	114,530	17,002	19,549	1,416	21,538	27,797	4,732	3,099	38,510	85,038	97,101	81.6	84.8	19,123	8,500	7,668	6,325
Charleston & Western Carolina	Aug.	343	507	2	521	524	172	181	8	105	102	42	18	154	463	492	89.0	94.0	57	30	39	34
	8 mos.	343	4,346	13	4,465	4,797	1,220	1,227	63	823	894	340	144	1,322	3,621	3,647	81.1	76.0	845	345	435	604
Baltimore & Ohio	Aug.	6,183	28,641	1,725	32,793	41,814	3,914	5,682	584	6,726	8,316	1,025	840	13,824	26,969	32,222	82.2	77.1	5,824	1,606	2,871	4,378
	8 mos.	6,183	221,229	13,353	253,031	312,312	29,610	40,992	3,777	50,489	65,477	8,190	6,790	107,415	206,911	245,605	81.8	78.6	46,126	14,270	22,204	32,041
Staten Island Rapid Transit	Aug.	29	190	51	244	290	47	49	14	27	25	2	1	131	240	236	98.6	81.2	3	41	—54	—10
	8 mos.	29	1,436	407	1,865	2,335	383	472	96	209	238	15	12	1,029	1,876	2,130	100.6	91.2	—11	311	—469	—273
Bangor & Aroostook	Aug.	602	605	30	676	739	200	200	16	211	245	89	18	244	736	757	108.9	102.5	—60	12	155	121
	8 mos.	602	8,939	242	9,528	9,393	2,100	2,100	128	1,811	1,884	658	157	2,497	7,114	7,051	74.7	75.1	2,414	1,076	1,767	1,535
Bessemer & Lake Erie	Aug.	209	1,824	....	1,839	2,904	174	232	18	464	541	142	25	404	1,167	1,445	63.4	49.8	672	439	523	696
	8 mos.	209	14,399	3	14,518	20,534	1,630	1,739	158	4,698	5,728	1,142	218	3,282	10,617	12,114	73.1	59.0	3,901	2,103	3,275	4,189
Boston & Maine	Aug.	1,676	4,985	1,006	6,795	7,695	1,219	1,314	148	967	1,021	190	131	2,966	5,592	5,859	82.3	76.1	1,203	530	270	593
	8 mos.	1,676	40,862	7,306	54,443	59,899	10,294	10,551	1,305	8,103	8,955	1,407	970	24,446	46,456	48,143	83.5	80.4	7,987	4,062	122	3,400
Cambria & Indiana	Aug.	35	99	....	99	142	22	23	1	108	86	22	....	20	156	140	158.5	98.4	—58	41	53	89
	8 mos.	35	968	....	968	1,186	158	153	6	838	749	178	1	169	1,221	1,130	126.2	95.3	—253	397	503	629
Canadian Pacific Lines in Maine	Aug.	234	233	68	332	349	92	99	6	66	98	17	8	177	358	387	107.7	110.9	—26	28	—58	—76
	8 mos.	234	3,693	409	4,344	4,870	779	902	44	835	1,108	139	64	1,742	3,541	4,114	81.5	84.5	803	223	328	244
Canadian Pacific Lines in Vermont	Aug.	90	178	15	212	217	33	96	5	25	35	....	7	116	190	278	89.4	128.2	23	14	—51	—136
	8 mos.	90	1,481	104	1,761	1,813	344	627	36	230	298	2	55	962	1,663	2,047	94.4	112.9	99	103	—479	—784
Central of Georgia	Aug.	1,764	2,817	170	3,212	3,437	515	588	40	537	509	137	144	1,265	2,648	2,815	82.4	81.9	564	210	336	333
	8 mos.	1,772	22,879	1,299	26,308	29,490	4,136	4,759	347	4,307	4,608	1,104	1,144	10,438	21,680	23,425	82.4	79.4	4,628	1,706	2,589	2,765
Central of New Jersey	Aug.	613	3,824	513	4,664	5,068	646	696	91	670	1,003	185	71	1,984	3,560	3,916	76.3	77.3	1,104	486	389	569
	8 mos.	613	30,585	3,617	36,946	41,847	5,090	5,692	703	6,613	8,289	1,407	604	15,984	29,887	33,648	80.9	80.4	7,059	3,708	2,056	3,322
Central Vermont	Aug.	422	797	84	951	1,014	267	219	16	82	116	11	18	364	771	773	81.1	76.2	180	45	45	106
	8 mos.	422	6,199	505	7,248	7,795	1,739	1,658	132	842	1,043	86	137	2,943	5,994	6,166	82.7	79.1	1,254	336	139	562
Chesapeake & Ohio	Aug.	5,115	23,873	665	26,216	32,838	3,767	3,732	382	4,457	5,512	1,499	652	8,667	18,836	20,655	71.8	62.9	7,380	2,968	4,715	6,710
	8 mos.	5,102	181,878	5,114	197,479	232,515	28,810	31,171	3,033	39,169	43,973	12,084	5,512	68,121	152,013	163,104	77.0	70.1	45,466	17,889	30,369	40,091
Chicago & Eastern Illinois	Aug.	868	2,100	274	2,616	3,130	382	431	36	442	557	131	132	1,051	2,180	2,413	83.3	77.1	436	102	233	341
	8 mos.	868	17,380	1,878	21,365	24,460	2,813	3,110	231	3,602	4,264	1,045	1,038	8,429	17,303	18,568	81.0	75.9	4,062	1,026	2,221	2,869
Chicago & Illinois Midland	Aug.	130	727	....	743	690	60	73	7	128	163	23	28	195	452	519	60.9	75.2	290	139	99	55
	8 mos.	130	4,920	....	5,034	5,779	557	654	65	1,106	1,241	186	260	1,618	3,911	4,287	77.7	74.2	1,123	534	296	507
Chicago & Northwestern	Aug.	7,876	13,954	2,234	17,844	18,708	2,752	3,084	355	3,052	3,316	846	381	7,655	14,728	15,439	82.5	82.5	3,116	1,161	1,062	1,173
	8 mos.	7,876	95,266	14,917	123,289	135,532	19,807	23,390	2,779	23,069	25,514	6,599	3,063	57,798	110,565	119,575	89.7	88.2	12,725	8,429	—1,336	2,784
Chicago, Burlington & Quincy	Aug.	8,858	17,777	1,958	21,873	24,650	3,827	5,027	488	3,464	3,134	825	462	8,204	16,783	17,723	76.7	71.9	5,090	2,208	2,085	2,714
	8 mos.	8,861	133,805	12,528	164,611	183,597	23,739	30,581	3,272	27,812	26,251	6,387	3,984	62,441	124,586	131,616	75.7	71.7	40,025	19,752	17,745	20,612
Chicago Great Western	Aug.	1,470	2,638	20	2,831	3,160	401	475	41	417	425	120	111	901	1,905	2,037	67.3	64.5	926	340	355	390
	8 mos.	1,470	20,059	87	21,495	19,275	3,130	3,116	343	3,312	2,403	964	883	6,783	14,714	13,042	68.5	67.7	6,780	2,484	2,699	2,557
Chicago, Indianapolis & Louisville	Aug.	541	1,508	53	1,711	1,851	272	371	24	280	286	73	89	638	1,379	1,468	80.6	79.4	332	109	129	160
	8 mos.	541	12,020	476	13,520	14,540	2,037	2,779	178	2,090	2,174	567	710	4,973	10,620	11,427	78.6	78.6	2,900	977	1,157	1,261
Chicago, Milw., St. Paul & Pacific	Aug.	10,640	17,646	1,631	21,524	22,577	3,240	3,994	391	3,709	4,334	915	489	8,346	16,868	18,873	78.4	83.6	4,656	1,380	2,273	1,033
	8 mos.	10,639	127,647	10,032	154,152	171,285	26,739	28,798	3,263	32,223	36,411	7,137	3,856	63,265	134,169	145,807	87.0	85.1	19,984	10,684	3,369	7,476
Chicago, Rock Island & Pacific	Aug.	7,885	12,801	1,730	15,914	17,391	2,602	2,762	249	2,300	2,604	566	479	5,737	11,996	12,647	75.4	72.7	3,917	699	2,201	2,101
	8 mos.	7,886	102,754	11,677	126,208	143,975	17,275	18,491	1,993	20,798	21,802	4,520	3,865	46,762	95,345	99,386	75.5	69.0	30,864	11,563	12,631	19,074
Chic., St. Paul, Minn. & Omaha	Aug.	1,616	2,803	208	3,236	3,097	487	523	49	384	417	90	63	1,406	2,480	2,555	76.6	82.5	756	184	290	138
	8 mos.	1,616	18,481	1,254	21,454	22,012	3,381	3,934	385	3,169	3,432	732	511	10,415	18,514	20,131	86.3	91.5	2,940	1,346	—565	—1,283
Clinchfield	Aug.	317	1,726	....	1,740	2,048	226	370	20	287	342	91	48	385	985	1,226	56.6	59.9	755	127	754	757
	8 mos.	317	13,264	4	13,338	16,453	2,389	2,897	157	2,423	2,770	1,003	379	3,067	8,593	9,729	64.4	59.1	4,745	1,686	3,517	5,847

REVENUES AND EXPENSES OF RAILWAYS

(Dollar figures are stated in thousands; i.e., with last three digits omitted)

MONTH OF AUGUST AND EIGHT MONTHS OF CALENDAR YEAR 1954

Name of Road		Average mileage operated during period	Operating Revenues: Freight	Pass.	Total 1954	Total (inc. misc.) 1953	Operating Expenses: Maint. Way and Structures: Total 1954	Total 1953	Deprec. and Retirements	Maint. Equipment: Total 1954	Total 1953	Deprec. and Retirements	Traffic	Transportation	Total 1954	Total 1953	Operating ratio 1954	Operating ratio 1953	Net from railway operation	Railway tax accruals	Net railway operating income 1953	Net railway operating income 1953
Colorado & Southern	Aug.	729	1,079	102	1,309	1,514	227	239	44	189	153	42	31	462	971	938	74.2	62.0	338	158	149	262
	8 mos.	729	7,570	546	9,100	10,684	1,318	1,410	183	1,780	1,424	331	247	3,431	7,248	7,147	79.7	66.9	1,851	856	822	1,553
Ft. Worth & Denver	Aug.	1,038	1,332	182	1,703	1,740	238	284	31	230	258	44	57	608	1,241	1,332	72.9	76.6	462	138	229	169
	8 mos.	1,038	12,012	1,111	14,443	15,631	2,197	2,399	302	2,151	2,099	346	469	4,922	10,543	10,921	73.0	69.9	3,900	1,118	1,858	2,092
Colorado & Wyoming	Aug.	40	195	....	291	289	21	10	2	28	29	11	1	97	159	153	54.7	52.8	132	72	59	50
	8 mos.	40	985	....	1,704	2,340	121	145	16	213	279	91	12	708	1,145	1,377	67.1	58.8	559	285	260	378
Columbus & Greenville	Aug.	168	133	....	140	177	34	36	4	24	21	6	5	53	133	129	95.2	73.2	7	10	—2	13
	8 mos.	168	1,163	....	1,221	1,375	243	286	29	205	204	50	36	376	1,011	1,068	82.7	77.7	211	158	48	112
Delaware & Hudson	Aug.	793	3,928	195	4,277	4,884	556	895	71	790	887	179	82	1,534	3,160	3,700	73.9	75.8	1,117	303	775	921
	8 mos.	793	29,468	1,261	31,946	36,699	4,568	6,164	443	6,278	6,648	1,442	703	12,217	25,427	28,041	79.6	76.4	6,519	2,273	3,788	6,286
Delaware Lackawanna & Western	Aug.	962	5,068	791	6,461	7,457	849	975	137	1,090	1,281	312	184	3,208	5,597	5,875	86.6	78.8	864	387	412	784
	8 mos.	962	40,536	6,191	51,823	60,413	6,438	7,125	1,121	8,823	10,296	2,539	1,425	24,487	43,404	46,684	83.8	77.3	8,419	3,778	4,060	6,768
Denver & Rio Grande Western	Aug.	2,164	6,285	344	6,868	7,477	831	877	155	936	1,174	285	186	2,067	4,320	4,705	62.9	62.9	2,549	1,146	1,344	1,166
	8 mos.	2,165	43,190	1,970	46,984	56,385	6,646	7,940	952	7,475	9,233	2,290	1,496	14,206	32,151	37,594	68.4	66.7	14,833	6,377	8,669	8,125
Detroit & Mackinac	Aug.	232	196	....	198	205	40	35	6	23	23	9	5	40	120	112	60.7	54.7	78	45	35	42
	8 mos.	232	1,280	3	1,305	1,394	320	327	25	183	191	75	40	295	930	930	71.2	66.7	375	229	182	224
Detroit & Toledo Shore Line	Aug.	50	518	....	570	747	86	90	3	55	60	18	16	188	360	398	63.1	53.2	210	62	55	108
	8 mos.	50	4,735	....	5,103	5,989	643	653	25	469	510	143	134	1,521	2,878	3,126	56.4	52.2	2,225	722	620	920
Detroit, Toledo & Ironton	Aug.	464	1,305	....	1,342	1,990	270	254	24	257	282	98	40	563	1,195	1,364	89.1	68.6	147	66	153	283
	8 mos.	464	11,591	2	12,003	15,095	2,163	1,955	186	2,125	2,014	778	285	3,631	8,749	10,639	72.9	70.5	3,254	1,301	1,938	1,920
Duluth, Missabe & Iron Range	Aug.	566	5,324	2	6,291	9,295	506	750	64	543	689	111	10	1,522	2,704	3,705	43.0	39.9	3,587	2,007	1,572	1,790
	8 mos.	566	24,670	6	28,884	43,190	4,237	4,925	505	5,819	5,883	886	81	9,094	20,145	24,277	69.7	56.2	8,738	4,643	3,933	6,430
Duluth, South Shore & Atlantic	Aug.	553	561	5	606	658	157	236	10	101	129	23	27	207	519	656	85.7	99.7	87	32	50	27
	8 mos.	553	4,317	40	4,623	5,691	1,053	1,329	83	995	1,202	185	219	1,596	4,045	4,726	87.5	83.0	578	226	274	411
Duluth, Winnipeg & Pacific	Aug.	175	522	2	533	430	87	105	4	80	84	2	6	234	413	397	77.5	92.4	120	41	—2	—54
	8 mos.	175	3,626	7	3,692	3,441	623	699	34	536	597	17	43	1,699	2,962	2,951	80.2	85.8	730	285	—144	—235
Elgin, Joliet & Eastern	Aug.	236	2,618	....	3,360	4,713	224	399	23	480	904	114	33	1,265	2,166	3,159	64.5	67.0	1,194	234	757	345
	8 mos.	236	23,555	....	29,157	37,992	1,990	2,543	198	11,821	7,565	916	283	11,115	26,569	25,095	91.1	66.1	2,588	1,747	—920	3,239
Erie	Aug.	2,225	11,028	641	12,758	15,925	2,247	2,688	286	2,165	2,167	514	343	5,816	11,240	12,042	88.1	75.6	1,518	Cr 101	947	1,479
	8 mos.	2,224	88,324	4,626	101,245	122,615	14,733	16,677	1,934	16,624	17,374	4,055	2,829	43,752	83,177	90,513	82.2	73.8	18,068	4,509	8,400	13,150
Florida East Coast	Aug.	571	1,427	364	1,945	1,911	563	367	44	532	492	78	80	863	2,189	1,901	112.6	99.5	—244	187	—509	85
	8 mos.	571	15,901	4,480	22,189	23,537	3,373	2,993	355	3,968	4,222	623	624	8,515	17,875	17,703	80.6	75.2	4,314	1,517	1,258	2,980
Georgia Railroad	Aug.	321	557	35	700	844	112	118	14	137	137	33	33	292	606	642	86.6	76.0	94	35	99	199
	8 mos.	321	4,756	203	5,533	6,447	989	964	80	1,051	1,092	263	270	2,396	4,984	5,234	90.1	81.2	549	282	550	1,151
Georgia & Florida	Aug.	332	301	....	304	363	76	116	3	33	39	8	19	88	233	296	76.4	81.4	72	15	27	13
	8 mos.	336	2,313	....	2,338	2,758	777	848	110	302	306	61	156	730	2,098	2,235	89.7	81.0	240	119	—90	125
Grand Trunk Western	Aug.	952	3,890	255	4,466	5,243	753	794	62	807	825	95	83	2,171	4,002	4,146	89.6	79.1	464	304	—251	310
	8 mos.	952	33,971	1,739	38,389	42,886	5,666	5,968	431	6,745	6,938	720	633	17,359	31,873	33,170	83.0	77.3	6,516	2,496	1,057	4,437
Can. Natl. Lines in New Eng.	Aug.	172	155	14	295	193	65	77	8	23	41	....	3	231	337	296	114.2	153.6	—42	25	—145	—187
	8 mos.	172	1,256	62	1,592	1,832	570	577	79	254	326	1	22	1,176	2,142	2,220	134.5	121.2	—550	199	—1,210	—1,004
Great Northern	Aug.	8,306	21,237	1,300	24,332	25,106	4,332	4,276	352	3,501	3,574	766	374	7,508	16,614	16,682	68.3	66.4	7,718	3,373	3,354	3,297
	8 mos.	8,305	141,918	7,443	161,325	171,870	31,665	32,643	2,595	29,317	30,422	6,029	3,252	54,861	126,007	129,271	78.1	75.2	35,318	17,444	13,127	16,163
Green Bay & Western	Aug.	224	387	....	397	416	132	104	4	68	42	8	22	110	350	277	88.1	66.6	47	18	—1	41
	8 mos.	224	2,869	....	2,921	3,059	723	672	32	375	323	63	183	839	2,260	2,013	74.7	64.5	661	301	160	345
Gulf, Mobile & Ohio	Aug.	2,758	5,798	406	6,671	7,785	1,055	1,227	82	1,277	1,466	283	273	2,035	4,973	5,556	74.6	71.4	1,698	722	721	870
	8 mos.	2,762	47,665	2,765	54,181	62,451	8,033	9,481	583	10,604	11,270	2,232	2,211	16,915	40,623	43,578	75.0	69.8	13,558	5,533	5,576	7,498
Illinois Central	Aug.	6,537	18,945	2,148	23,139	27,372	3,731	3,837	470	3,523	4,091	742	509	8,153	16,960	18,078	73.3	66.0	6,179	3,435	2,294	3,707
	8 mos.	6,537	149,236	14,323	182,091	203,918	28,688	30,880	3,191	31,872	32,801	5,659	4,256	67,720	140,872	146,831	77.4	72.0	41,219	22,440	14,990	21,717
Illinois Terminal	Aug.	355	831	53	988	1,163	157	169	27	139	196	42	45	417	837	880	84.8	75.6	151	22	79	114
	8 mos.	355	6,025	435	7,171	8,462	1,136	1,299	202	1,221	1,462	334	362	2,997	6,219	6,753	86.7	79.8	952	409	401	766
Kansas City Southern	Aug.	891	2,940	122	3,379	4,037	346	587	41	350	650	92	84	1,037	1,936	2,615	57.3	64.8	1,443	641	665	736
	8 mos.	891	24,023	912	27,611	32,613	2,754	4,074	295	3,048	4,210	724	745	8,402	15,945	19,418	57.7	59.5	11,666	5,135	5,035	5,709
Kansas, Oklahoma & Gulf	Aug.	327	409	....	410	551	78	118	7	27	78	11	27	110	263	365	64.0	66.3	148	64	52	66
	8 mos.	327	3,383	3	3,402	4,654	509	753	59	283	356	90	225	921	2,106	2,512	61.9	54.0	1,296	543	490	833
Lake Superior & Ishpeming	Aug.	156	376	....	457	765	58	63	12	50	56	16	2	98	219	265	48.0	34.6	238	80	167	231
	8 mos.	156	1,881	....	2,290	3,380	477	475	105	483	469	128	16	593	1,658	1,818	72.4	53.8	632	322	410	822
Lehigh & Hudson River	Aug.	96	260	....	261	298	39	41	2	26	27	8	15	86	177	179	67.7	59.9	84	29	30	45
	8 mos.	96	2,150	....	2,155	2,297	316	332	19	243	235	68	110	705	1,467	1,453	68.1	63.3	688	249	226	306
Lehigh & New England	Aug.	180	541	....	545	806	82	87	6	128	138	40	13	189	446	481	81.7	59.7	100	86	64	202
	8 mos.	180	4,356	....	4,394	5,256	639	695	58	1,113	1,041	318	105	1,541	3,713	3,753	84.5	71.4	681	504	629	1,039
Lehigh Valley	Aug.	1,163	5,077	326	5,713	6,598	904	929	96	940	1,125	208	133	2,435	4,657	4,898	81.5	74.2	1,056	369	509	963
	8 mos.	1,163	38,241	2,364	43,052	51,346	6,586	6,766	750	7,180	8,697	1,657	1,094	18,801	35,654	38,306	82.8	74.6	7,398	2,987	3,119	7,097
Long Island	Aug.	360	1,012	3,817	5,056	4,849	575	621	87	950	924	125	11	2,443	4,149	3,918	82.1	80.8	906	175	442	269
	8 mos.	360	8,452	26,099	36,383	37,357	5,275	5,180	735	7,495	7,164	999	116	19,307	33,575	31,806	92.3	85.1	2,808	2,686	—2,215	274

REVENUES AND EXPENSES OF RAILWAYS

(Dollar figures are stated in thousands; i.e., with last three digits omitted)

MONTH OF AUGUST AND EIGHT MONTHS OF CALENDAR YEAR 1954

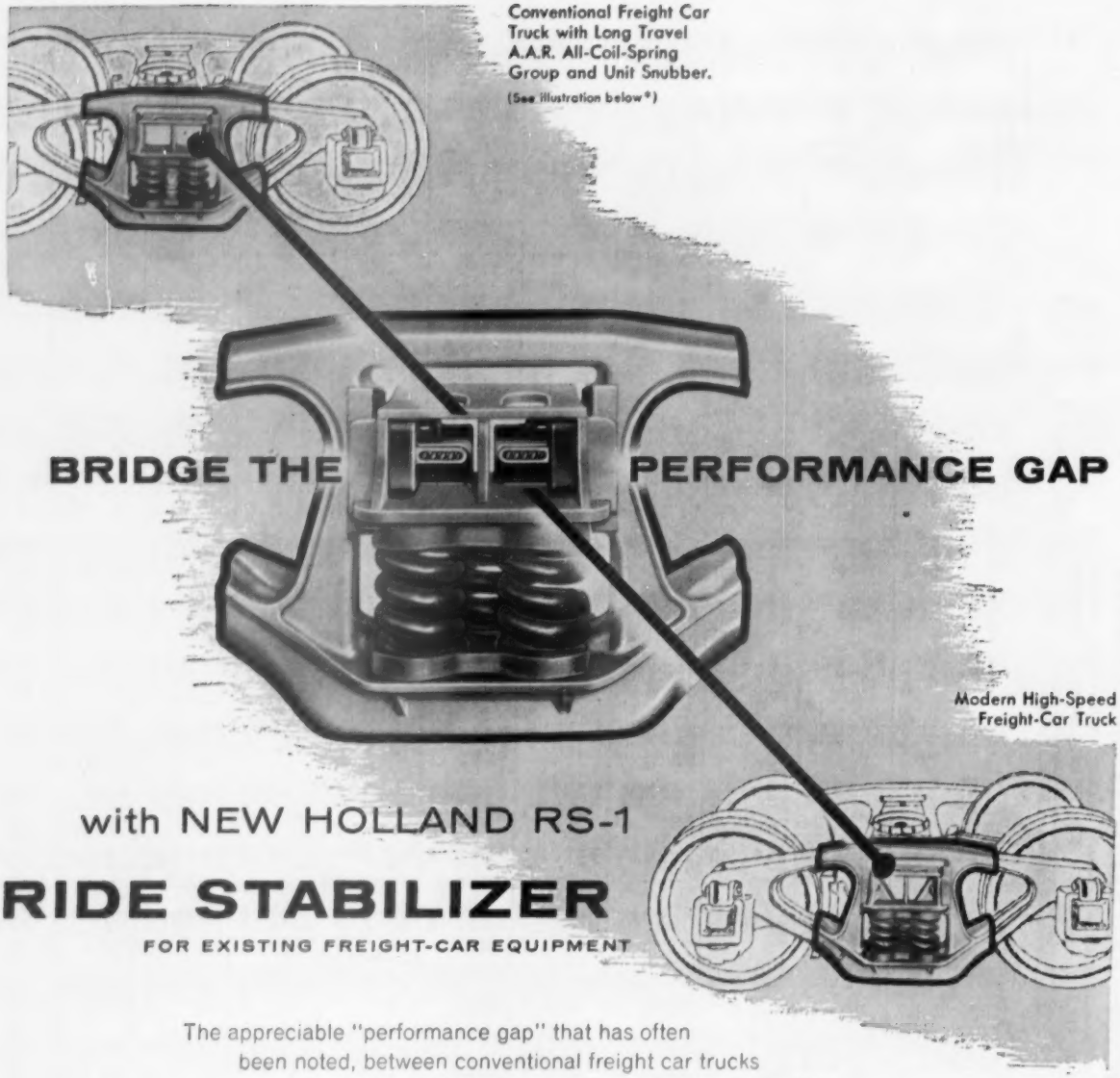
Name of Road		Average mileage operated during period	Operating Revenues: Freight	Pass.	Total 1954	Total (inc. misc.) 1953	Operating Expenses: Maint. Way and Structures: Total 1954	Total 1953	Deprec. and Retirements	Maint. Equipment: Total 1954	Total 1953	Deprec. and Retirements	Traffic	Transportation	Total 1954	Total 1953	Operating ratio 1954	Operating ratio 1953	Net from railway operation	Railway tax accruals	Net railway operating income 1954	Net railway operating income 1953
Louisiana & Arkansas	Aug.	752	1,798	55	1,938	2,625	221	429	21	253	306	84	68	585	1,205	1,512	62.2	57.6	133	311	372	587
	8 mos.	752	15,862	437	16,982	20,292	2,162	3,140	174	2,112	2,289	702	599	4,740	10,252	11,644	60.4	57.4	6,730	2,774	3,436	4,270
Louisville & Nashville	Aug.	4,737	14,025	1,000	16,057	19,750	2,575	2,860	219	3,522	3,768	948	339	5,926	13,177	13,984	82.1	70.8	2,880	1,827	1,720	3,209
	8 mos.	4,735	113,109	7,539	130,203	158,119	22,385	21,999	1,803	29,835	30,863	7,515	2,763	48,145	108,511	113,089	83.3	71.5	21,692	11,770	14,639	23,256
Maine Central	Aug.	944	1,701	147	2,016	2,045	450	442	28	391	326	77	22	745	1,702	1,612	84.4	78.8	314	101	184	206
	8 mos.	944	14,707	899	16,848	17,325	3,518	3,696	219	3,170	2,830	613	167	5,955	13,551	13,343	80.4	77.0	3,297	1,303	1,334	1,708
Midland Valley	Aug.	334	178	....	182	267	46	55	5	11	18	4	5	56	125	149	68.9	55.6	56	23	20	47
	8 mos.	334	1,333	....	1,358	1,698	318	370	42	89	125	31	42	426	944	1,072	69.5	63.2	415	173	148	215
Minneapolis & St. Louis	Aug.	1,397	1,930	7	2,009	1,914	335	348	45	262	276	72	101	625	1,414	1,458	70.4	76.2	595	290	241	154
	8 mos.	1,397	13,062	39	13,624	14,404	2,311	2,671	244	2,141	2,130	609	858	4,641	10,812	11,367	79.4	78.9	2,812	1,388	1,371	1,206
Minn., St. Paul & Sault S. Marie	Aug.	3,222	4,094	114	4,424	4,294	764	809	54	594	730	98	81	1,441	3,026	3,207	68.4	74.7	1,398	277	1,115	818
	8 mos.	3,222	23,402	717	25,590	26,466	5,571	6,116	400	5,002	5,424	801	642	9,998	22,288	23,599	87.1	89.2	3,302	1,761	1,497	897
Mississippi Central	Aug.	148	213	....	216	222	38	58	2	26	26	6	14	54	141	161	65.4	72.2	75	28	35	24
	8 mos.	148	1,572	....	1,603	1,862	469	436	20	216	255	48	110	406	1,284	1,365	80.1	73.3	319	111	131	197
Missouri Illinois	Aug.	172	444	....	446	464	71	76	5	68	74	26	8	109	267	291	59.8	62.8	179	28	153	81
	8 mos.	172	3,382	1	3,405	3,967	597	613	32	627	604	213	75	894	2,279	2,331	66.9	58.8	1,126	464	690	716
Missouri-Kansas-Texas	Aug.	3,241	5,143	304	5,997	7,119	842	1,174	112	805	1,096	239	224	2,322	4,476	5,299	74.6	74.4	1,521	439	729	801
	8 mos.	3,241	42,049	2,157	48,766	58,544	7,077	8,745	812	7,362	8,879	1,909	1,954	18,945	37,770	41,919	77.5	71.6	10,997	3,192	4,763	6,740
Missouri Pacific	Aug.	6,928	15,284	1,017	17,920	19,083	3,158	3,757	341	3,083	4,099	809	461	6,618	13,970	16,245	78.0	85.1	3,950	1,118	2,335	1,607
	8 mos	6,924	120,019	6,921	140,367	160,945	24,178	29,951	2,343	25,544	31,882	6,384	3,826	53,750	112,612	128,870	80.2	80.1	27,756	8,098	14,210	17,043
International Great Northern	Aug.	1,103	2,185	181	2,617	3,054	507	611	45	480	594	122	61	1,100	2,269	2,644	86.7	86.6	349	98	206	304
	8 mos.	1,103	18,195	1,170	21,150	25,974	4,037	5,612	297	3,789	4,611	945	492	8,879	18,159	21,482	85.9	82.7	2,991	857	1,648	2,681
Gulf Coast Lines	Aug.	1,724	2,999	97	3,322	3,310	670	769	84	501	537	110	91	1,121	2,529	2,733	76.1	82.5	793	15	615	337
	8 mos.	1,724	25 246	632	27,626	29,772	5,499	6,736	469	4,102	4,342	866	739	9,302	20,821	22,463	75.3	75.4	6,805	1,038	3,986	3,652
Monongahela	Aug.	177	504	....	508	741	81	92	16	69	66	14	1	161	341	380	67.2	51.3	166	27	17	112
	8 mos.	177	3,748	....	3,776	5,003	527	1,002	129	500	563	109	6	1,326	2,450	3,466	64.9	69.3	1,325	217	179	112
Montour	Aug.	51	102	....	105	264	15	36	2	39	78	18	1	54	120	199	113.9	75.5	—15	....	23	58
	8 mos.	51	1,037	....	1,108	1,743	121	254	20	401	618	148	8	433	1,041	1,517	93.9	87.1	67	280	347	366
Nashville, Chatt. & St. Louis	Aug.	1,043	2,380	146	2,837	3,376	452	567	45	390	428	138	117	1,096	2,169	2,357	76.5	69.8	668	298	371	535
	8 mos.	1,033	20,195	1,075	23,902	26,946	3,867	4,161	341	3,236	3,923	1,096	936	8,930	17,925	19,154	75.0	71.1	5,977	2,685	3,004	3,948
New York Central	Aug.	10,713	41,654	9,799	58,887	69,591	8,031	9,644	1,010	10,151	13,539	2,359	1,067	26,156	48,680	56,232	82.7	80.8	10,207	4,927	3,365	5,679
	8 mos.	10,713	338,709	71,291	470,503	554,782	66,961	76,040	8,182	92,180	111,656	19,023	8,700	214,212	408,873	456,837	86.9	82.3	61,631	37,205	8,712	41,114
Pittsburgh & Lake Erie	Aug.	221	2,402	70	2,605	4,232	432	573	41	842	1,046	288	74	1,128	2,689	3,259	103.2	77.0	—83	136	577	1,329
	8 mos.	221	20,501	524	22,295	34,399	3,385	4,277	329	7,416	8,507	2,313	613	8,807	21,991	26,438	98.6	76.9	304	1,638	5,178	9,405
New York, Chicago & St. Louis	Aug.	2,185	11,683	189	12,339	14,881	1,320	1,645	156	1,829	2,236	360	312	4,574	8,460	9,679	68.6	65.0	3,879	1,851	1,580	2,162
	8 mos.	2,185	90,738	1,225	95,151	112,584	10,928	13,376	1,226	15,638	17,598	2,804	2,536	35,057	67,717	75,746	71.2	67.3	27,434	13,469	11,072	15,162
New York, New Haven & Hartford	Aug.	1,769	6,637	4,481	12,551	14,141	1,504	2,098	263	1,774	1,993	426	223	5,434	9,692	11,037	77.2	78.0	2,859	920	1,156	869
	8 mos.	1,770	55,536	33,242	100,338	109,841	13,881	17,681	2,164	14,979	16,074	3,247	1,484	44,500	81,062	87,861	80.8	80.0	19,276	7,090	4,636	6,209
New York Connecting	Aug.	21	248	....	267	333	179	117	25	19	21	....	....	73	275	223	103.0	66.8	—8	81	—78	33
	8 mos.	21	2,181	....	2,348	2,811	800	700	201	155	209	....	....	655	1,635	1,669	69.6	59.4	713	671	36	526
New York, Ontario & Western	Aug.	541	478	....	496	666	121	161	17	84	87	23	24	253	512	596	103.2	89.4	—16	35	—123	—69
	8 mos.	541	3,905	....	4,017	4,841	976	1,033	143	707	707	180	188	2,032	4,144	4,317	103.1	89.2	—126	290	—1,007	—360
New York, Susquehanna & Western	Aug.	120	443	38	500	481	47	59	5	56	58	15	7	224	362	359	72.3	74.6	139	35	45	40
	8 mos.	120	3,349	305	3,810	3,870	401	457	50	496	480	101	65	1,750	2,937	2,781	77.1	74.2	873	270	169	354
Norfolk & Western	Aug.	2,135	13,488	367	14,472	17,612	2,082	2,450	293	2,771	3,216	676	319	4,294	10,059	11,540	69.5	65.5	4,413	2,872	2,425	3,381
	8 mos.	2,135	101,405	2,759	109,296	125,317	17,412	18,565	2,496	24,543	26,975	5,383	2,601	35,433	84,945	91,299	77.7	72.9	24,352	16,938	12,860	17,183
Norfolk Southern	Aug.	612	793	....	803	914	185	193	14	128	117	28	46	256	675	666	84.1	72.9	128	46	50	96
	8 mos.	618	6,338	....	6,421	7,286	1,439	1,616	105	982	963	222	395	2,030	5,309	5,652	82.7	77.6	1,112	470	346	527
Northern Pacific	Aug.	6,866	13,728	789	15,682	16,033	2,500	2,930	311	2,676	3,001	466	385	6,225	12,649	12,977	80.7	80.9	3,033	1,254	1,720	1,186
	8 mos.	6,866	95,524	4,754	109,160	118,607	18,545	21,327	2,130	22,206	22,614	3,666	2,704	46,005	95,476	97,979	87.5	82.6	13,685	9,556	6,271	9,586
Northwestern Pacific	Aug.	331	1,483	6	1,525	1,240	276	273	19	92	148	4	5	423	816	830	53.5	66.9	709	377	225	106
	8 mos.	331	8,939	29	9 191	8,922	2,441	2,464	164	769	893	33	44	2,925	6,351	6,700	69.1	75.1	2,840	1,065	541	487
Oklahoma City Ada Atoka	Aug.	132	90	....	91	88	22	22	2	2	2	....	2	20	52	50	56.8	57.2	39	15	12	10
	8 mos.	132	860	....	869	724	167	173	22	11	11	....	16	164	398	391	45.9	54.0	470	187	176	120
Pennsylvania	Aug.	10,051	54,838	10,615	73,163	91,989	8,436	12,311	1,397	15,465	20,490	2,952	1,230	32,221	60,256	74,230	82.4	80.7	12,907	4,698	5,761	7,267
	8 mos.	10,051	422,222	85,485	568,912	704,814	66,154	93,438	11,455	125,182	155,236	23,741	9,963	256,735	482,046	576,503	84.7	81.8	86,866	39,531	28,277	57,123
Pennsylvania Reading Seashore Lines	Aug.	358	618	374	1,025	1,110	178	218	14	108	117	22	16	567	904	1,019	88.1	91.8	122	89	—119	—208
	8 mos.	358	4,693	1,486	6,358	6,791	1,555	1,735	203	830	831	174	94	3,979	6,782	7,413	106.7	109.2	—423	754	—2,295	—2,613

REVENUES AND EXPENSES OF RAILWAYS

(Dollar figures are stated in thousands; i.e., with last three digits omitted)

MONTH OF AUGUST AND EIGHT MONTHS OF CALENDAR YEAR 1954

Name of Road		Average mileage operated during period	Operating Revenues: Freight	Pass.	Total (inc. misc.) 1954	Total (inc. misc.) 1953	Operating Expenses: Maint. Way and Structures: Total 1954	Total 1953	Deprec. and Retirements	Maint. Equipment: Total 1954	Total 1953	Deprec. and Retirements	Traffic	Transportation	Total 1954	Total 1953	Operating ratio 1954	Operating ratio 1953	Net from railway operation	Railway tax accruals	Net railway operating income 1954	Net railway operating income 1953
Pittsburg & Shawmut	Aug.	97	148	....	148	213	33	66	4	63	45	12	4	36	147	179	99.3	84.2	1	5	28	63
	8 mos.	97	1,257	....	1,264	1,602	260	389	29	374	397	94	37	300	1,063	1,307	84.0	81.6	202	42	412	494
Pittsburgh & West Virginia	Aug.	132	632	....	636	819	106	144	24	121	179	36	59	171	493	611	77.5	74.6	143	24	122	132
	8 mos.	132	4,807	....	4,833	6,280	783	1,076	188	977	1,443	289	491	1,344	3,887	4,721	80.4	75.2	947	198	680	1,001
Reading	Aug.	1,305	7,866	511	8,943	11,409	1,156	1,761	199	1,866	2,277	431	156	3,538	7,124	8,559	79.7	75.0	1,819	597	1,164	1,572
	8 mos.	1,305	62,512	4,443	71,996	89,289	8,957	13,429	1,593	14,082	18,055	2,498	1,258	29,566	57,130	68,701	79.4	76.9	14,867	4,928	8,732	11,387
Richmond, Fredericksburg & Potomac	Aug.	118	1,229	519	2,000	2,209	286	252	24	339	294	70	22	702	1,474	1,404	73.7	63.5	526	269	204	290
	8 mos.	118	11,259	4,239	17,882	19,011	2,379	3,061	203	2,690	2,371	560	179	5,924	12,238	12,645	68.4	66.5	5,644	2,535	2,074	2,271
Rutland	Aug.	392	362	....	406	427	89	72	9	52	57	13	24	158	349	347	86.0	81.3	57	24	9	51
	8 mos.	392	2,688	—2	3,011	3,272	615	598	53	448	510	99	186	1,279	2,740	3,055	91.0	93.4	271	198	—132	—167
Sacramento Northern	Aug.	265	280	....	288	261	35	59	—8	21	16	3	2	83	152	156	52.6	59.9	137	19	92	68
	8 mos.	265	1,626	....	1,679	3,403	562	464	77	117	177	29	18	575	1,354	1,408	80.6	41.4	325	138	33	1,093
St. Louis-San Francisco	Aug.	4,601	8,013	461	9,194	10,921	1,283	1,651	144	1,617	1,675	527	323	3,646	7,361	8,083	80.1	74.0	1,833	846	977	1,417
	8 mos.	4,601	67,216	3,486	76,700	86,138	12,203	13,273	1,193	13,106	14,106	4,109	2,816	29,992	62,353	65,008	81.3	75.5	14,347	5,979	6,550	9,668
St. Louis-San Francisco & Texas	Aug.	159	436	4	465	490	66	58	8	34	36	1	24	152	287	279	61.7	57.0	178	71	53	62
	8 mos.	159	2,979	32	3,179	3,736	370	491	45	265	310	9	206	1,220	2,155	2,374	67.8	63.5	1,024	374	271	377
St. Louis Southwestern Lines	Aug.	1,562	4,517	25	4,719	5,631	664	1,031	57	593	736	107	170	1,522	3,118	3,755	66.1	66.7	1,601	718	711	825
	8 mos.	1,562	37,718	142	39,266	50,236	5,646	8,225	423	5,071	5,515	846	1,369	12,324	25,881	29,863	65.9	59.4	13,385	7,663	3,667	7,356
Seaboard Air Line	Aug.	4,064	9,144	1,036	11,113	11,509	1,568	1,628	184	2,012	2,068	540	354	3,841	8,265	8,297	74.4	72.1	2,848	1,073	1,786	1,885
	8 mos.	4,075	84,243	8,633	101,211	108,321	15,456	16,921	1,471	18,022	18,815	4,271	2,871	33,284	73,685	77,085	72.8	71.2	27,526	10,388	15,192	16,464
Southern	Aug.	6,286	17,652	1,670	20,974	22,240	2,955	3,286	307	3,658	4,330	799	408	6,817	14,839	16,171	70.8	72.7	6,135	2,962	2,850	2,858
	8 mos.	6,286	137,336	10,961	162,322	184,288	23,464	24,292	1,994	30,182	32,351	6,352	3,393	53,046	118,002	123,928	72.7	67.3	44,320	20,740	20,623	27,516
Alabama Great Southern	Aug.	326	1,301	89	1,519	1,660	263	259	30	272	337	58	37	458	1,128	1,187	74.3	71.5	391	171	215	281
	8 mos.	326	9,943	543	11,587	13,554	1,815	1,934	242	2,219	2,787	481	268	3,538	8,443	9,495	72.9	70.1	3,145	1,276	1,586	1,981
Cinn., New Orleans & Texas Pacific	Aug.	337	2,998	183	3,362	3,794	468	463	44	587	787	134	75	783	2,059	2,414	61.2	63.6	1,303	583	775	605
	8 mos.	337	25,025	1,312	28,042	32,415	3,851	3,530	344	4,793	6,545	1,051	579	7,061	17,440	19,511	62.2	60.2	10,602	5,659	4,847	5,881
Georgia Southern & Florida	Aug.	397	631	61	755	765	184	176	9	72	89	6	17	268	581	587	77.0	76.8	174	39	14	10
	8 mos.	397	5,205	597	6,422	6,729	1,527	1,322	73	539	603	51	156	2,120	4,695	4,158	73.1	61.8	1,726	318	118	543
New Orleans & Northeastern	Aug.	203	853	59	979	1,156	181	184	20	140	135	42	24	257	676	606	69.0	52.4	303	172	129	232
	8 mos.	203	7,115	366	8,040	9,321	1,617	1,312	165	1,112	995	330	160	1,894	5,231	4,646	65.1	49.8	2,809	1,713	1,106	1,661
Southern Pacific	Aug.	8,121	37,816	3,765	44,539	46,704	5,074	5,475	496	9,199	9,881	1,885	844	17,208	34,414	36,730	77.3	78.6	10,125	4,462	4,177	4,059
	8 mos.	8,120	282,990	23,601	328,678	371,607	39,777	44,365	3,938	69,786	75,764	14,845	6,731	131,462	263,900	282,959	80.3	76.1	64,777	29,113	25,983	32,628
Texas & New Orleans	Aug.	4,288	9,507	611	10,822	11,776	1 949	2,033	148	1,560	1,667	149	281	4,010	8,358	8,818	77.2	74.9	2,465	930	485	690
	8 mos.	4,291	74,764	4,340	84,724	98,951	15,297	16,853	1,044	12,052	13,137	1,147	2,177	31,861	66,047	70,396	78.0	71.1	18,677	6,861	4,035	8,372
Spokane International	Aug.	152	280	1	294	346	50	69	2	30	28	10	6	76	177	193	60.3	55.9	117	33	57	72
	8 mos.	152	2,082	6	2,189	2,311	438	487	19	206	185	77	44	577	1,360	1,348	62.1	58.3	828	218	407	467
Spokane, Portland & Seattle	Aug.	944	2,521	113	2,773	2,917	387	403	52	381	282	106	29	871	1,763	1,652	63.6	56.6	1,010	115	730	661
	8 mos.	944	17,339	650	19,114	21,454	2,785	3,043	402	3,025	2,830	850	235	6,570	13,372	13,312	70.0	62.0	5,742	1,685	3,496	4,280
Tennessee Central	Aug.	286	364	2	385	407	76	73	7	60	64	22	13	126	302	306	78.5	75.3	83	24	24	43
	8 mos.	286	2,793	12	2,966	3,413	610	736	46	468	543	178	100	997	2,375	2,697	80.1	79.0	591	191	127	231
Texas & Northern	Aug.	8	69	....	72	138	3	6	1	11	6	3	1	7	27	29	36.7	20.8	46	1	21	28
	8 mos.	8	552	....	582	1,031	31	40	3	69	60	20	8	65	212	239	36.4	23.2	370	9	216	234
Texas & Pacific	Aug.	1,831	5,175	450	6,095	7,064	927	1 051	163	1,110	1,156	247	169	2,116	4,659	4,913	76.4	69.6	1,436	695	385	948
	8 mos.	1,832	44,407	2,812	51,474	58,541	8,318	8,316	810	8,717	9,330	1,951	1,575	17,316	38,737	39,959	75.3	68.3	12,737	4,617	5,135	8,325
Texas Mexican	Aug.	161	183	....	196	264	74	46	6	25	28	10	9	60	187	166	95.5	63.0	9	1	—12	27
	8 mos.	161	1,664	....	1,773	2,300	445	442	48	220	259	78	71	496	1,391	1,455	78.5	63.2	382	138	71	270
Toledo, Peoria & Western	Aug.	239	525	....	530	648	96	122	6	39	51	11	47	128	349	395	65.8	61.0	181	71	46	65
	8 mos.	239	4,540	....	4,612	5,189	765	907	53	442	383	90	362	1,051	2,923	3,048	63.3	58.7	1,689	713	514	679
Union Pacific	Aug.	9,816	37,879	3,593	44,758	47,651	6,511	6,837	455	8,115	8,632	1,537	975	16,413	34,526	36,117	77.1	75.8	10,232	4,692	2,665	2,234
	8 mos.	9,817	266,360	21,863	312,341	345,476	40,235	49,745	3,710	58,521	66,273	11,569	8,290	113,964	238,205	265,366	76.3	76.8	74,136	42,762	17,128	16,695
Utah	Aug.	99	109	....	109	156	13	21	2	28	47	9	1	27	78	117	71.7	73.2	31	9	23	31
	8 mos.	106	594	....	595	793	117	152	15	315	335	72	6	227	725	839	121.9	105.8	—130	70	—179	—34
Virginian	Aug.	611	3,190	2	3,317	3,398	455	420	62	659	784	203	44	699	1,942	2,229	58.5	65.6	1,375	783	782	722
	8 mos.	611	23,021	10	23,879	25,331	3,398	3,463	499	5,164	5,853	1,545	362	5,621	15,268	16,779	63.9	66.2	8,611	4,907	5,057	4,810
Wabash	Aug.	2,393	7,814	526	9,001	10,305	1,148	1,277	125	1,120	1,364	359	300	4,034	7,009	7,752	77.9	75.2	1,992	671	652	980
	8 mos.	2,393	63,478	3,156	72,375	80,097	9,605	10,285	1,089	10,953	10,410	2,887	2,453	30,882	57,115	58,958	78.9	73.6	15,260	4,874	5,315	8,597
Ann Arbor	Aug.	294	709	....	755	934	100	98	6	137	135	30	27	331	619	630	82.0	67.5	136	56	54	138
	8 mos.	294	5,675	....	5,819	6,356	773	816	57	1,069	979	242	231	2,620	4,861	4,672	83.5	73.5	957	352	356	753
Western Maryland	Aug.	857	3,274	5	3,499	4,596	475	632	73	637	734	217	88	1,114	2,529	2,831	72.3	61.6	970	464	686	1,088
	8 mos.	857	25,871	31	27,542	34,129	3,835	4,383	458	5,222	5,704	1,734	764	8,981	20,355	22,056	73.9	64.6	7,186	3,478	5,080	7,129
Western Pacific	Aug.	1,193	4,011	239	4,350	5,335	833	758	85	652	680	178	215	1,336	3,287	3,329	75.6	62.4	1,063	433	516	851
	8 mos.	1,193	29,001	1,732	31,463	40,028	5,812	6,762	657	5,160	5,372	1,376	1,525	10,322	24,740	26,998	78.6	67.4	6,723	2,962	3,320	5,485
Wisconsin Central	Aug.	1,042	2,352	55	2,567	2,833	597	438	34	400	474	77	69	1,055	2,233	2,124	87.0	75.0	334	157	59	292
	8 mos.	1,042	17,869	344	19,363	21,889	3 334	3,195	302	3.278	3,563	615	570	7,890	15,944	16,489	82.3	75.3	3,419	1,004	1,363	2 —240



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(See illustration below*)

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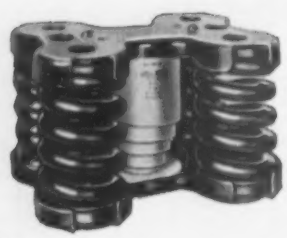

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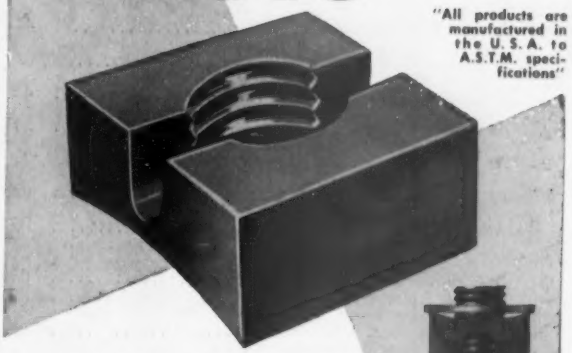

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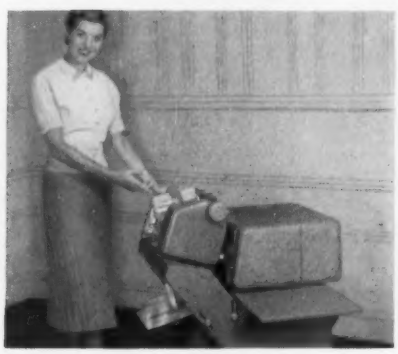

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